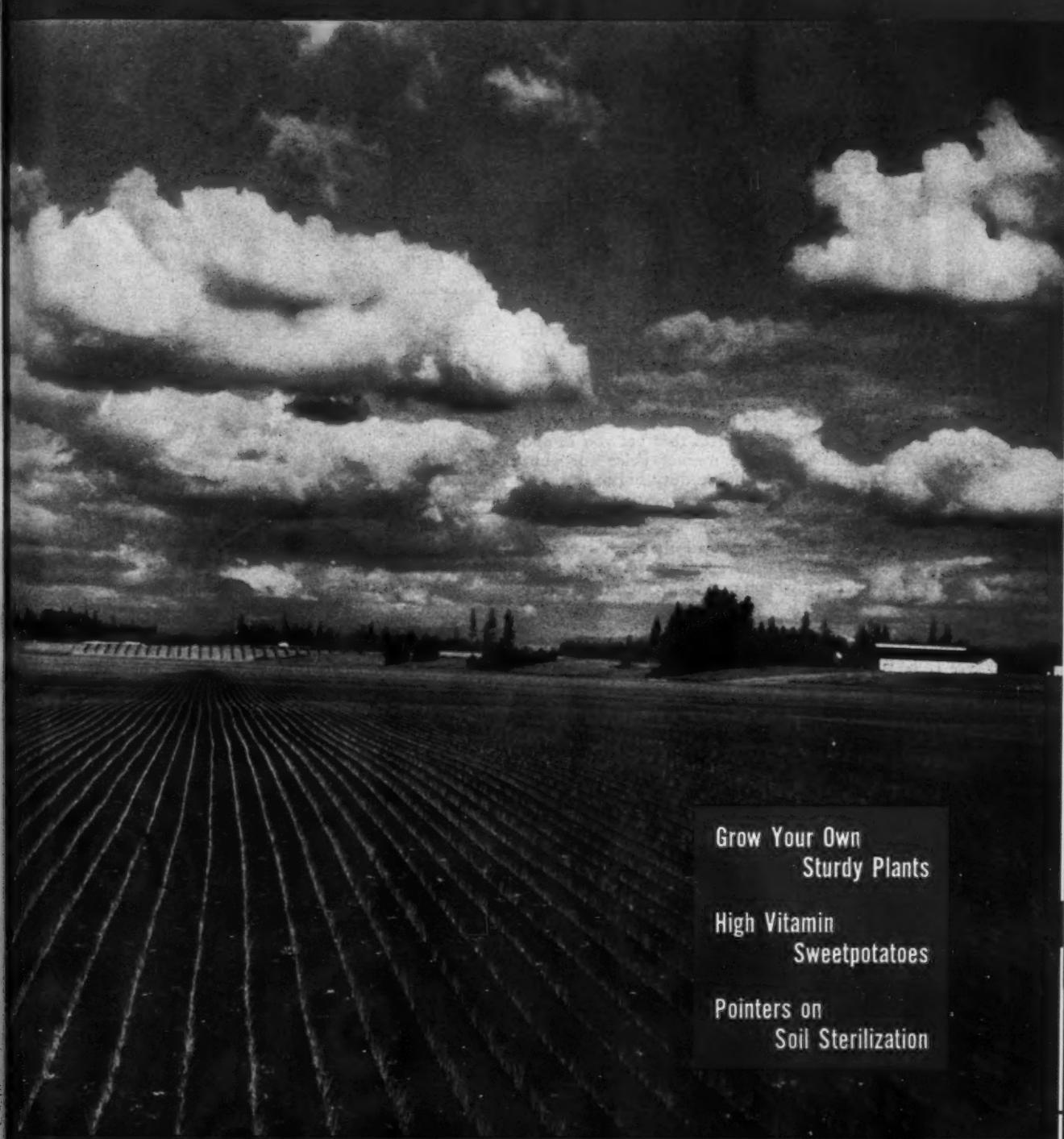


# American Vegetable Grower

MARCH • 1956



Grow Your Own  
Sturdy Plants

High Vitamin  
Sweetpotatoes

Pointers on  
Soil Sterilization

Prepackaged Produce—A Hit with Housewives

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AGRICULTURAL CHEMICALS DIVISION  
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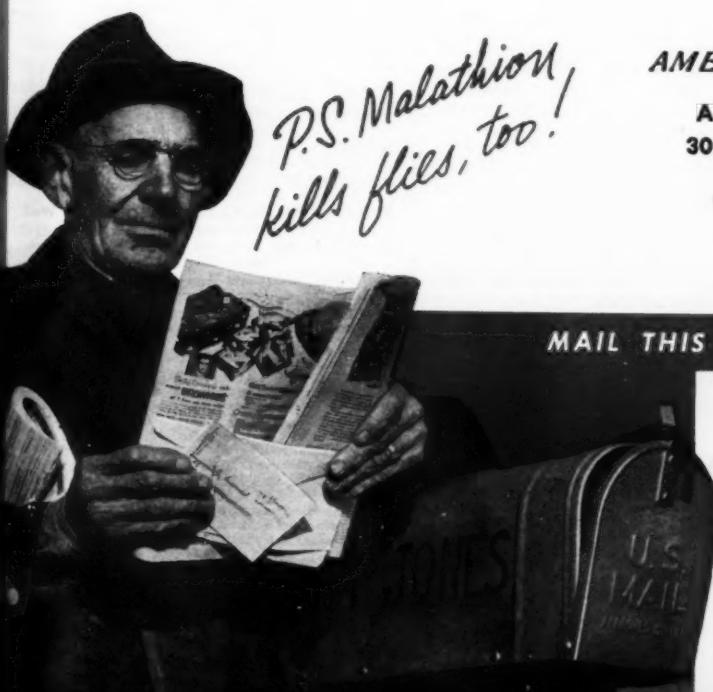
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UNITED STATES STEEL EXPORT COMPANY, NEW YORK



NATIONAL *plastic* PIPE

UNITED STATES STEEL

## AMERICAN VEGETABLE GROWER

REG. U. S. PAT. OFF.  
(Commercial Vegetable Grower)

Vol. 4 March, 1956 No. 3

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### AMERICAN VEGETABLE GROWER

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AMERICAN VEGETABLE GROWER

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Get better stands, yields, quality and profits

# with Agri-mycin<sup>®</sup> 100

- Antibiotic seed-piece dip for potatoes
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**Yields increased up to 72 bu. per acre**

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Address or Rural Route \_\_\_\_\_

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Vegetable crop \_\_\_\_\_ No. of acres raised \_\_\_\_\_

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**20%**  
**More Power**  
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**Hydrocooling Unit**  
**... Proved and**  
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**15 years!**

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## LETTERS TO THE EDITOR

### Potato Seed Pieces Preferred

Dear Editor:

In your column, "Answering Your Questions," someone gave an inadequate answer to the question, "What is the advantage of planting potato seed eyes over planting the whole potato?"

There is a definite advantage in planting potato seed eyes or seed pieces cut with one eye or possibly two eyes, over whole seed if one wants early potatoes. In planting whole seed there is quite likely to be several sprouts to the hill and since each sprout develops into a stalk on which is set from two to four potatoes, it is very evident that a seed piece having this many stalks will have many more small potatoes than one developing one or two stalks from a seed piece with one or two eyes.

If a grower wants early potatoes it would be to his advantage to plant cut seed which has been suberized so it will not rot in the ground and have as few eyes as possible to the seed piece. He will get larger potatoes earlier from this kind of seed than he will from whole seed.

If, however, he doesn't care for sizable potatoes early he will get more potatoes by planting whole seed over cut seed if the cut seed is cut to one or two eyes to a piece. If, however, the cut seed has from two to three or four eyes there will be as many stalks as there would be on a whole potato of small size.

Because it is unprofitable to raise small potatoes there never is enough small certified seed potatoes to meet the demand. That is the reason why they are selling from around 50 cents to \$1 cwt. over the price of the larger tubers which have to be cut.

Georgetown, N. Y. J. J. Evans, Sec'y  
N. Y. Co-op Seed Potato Assn., Inc.

### Greenhouse Culture for West

Dear Editor:

More than 40 years ago I lived in Lima, Ohio, for a short period and remember visiting near Cincinnati and hearing of a large greenhouse vegetable growing program of some member or members of the Taft family. At that time it was of mild interest to me. Now, however, it has become of vital, immediate interest.

My work as a minister, for the most part, in regions near Seattle and Tacoma, has brought me into contact with a fine group of vegetable and bush fruit growers. You are probably aware that we have a climate in which we have little freezing weather at any time during the year. We also have only a moderate amount of hot weather for a very short duration.

We have little activity in growing foods for the cooler portion of the year in the vegetable and small fruit line and I have talked to a number of growers regarding the possible use of greenhouse methods. There is a growing interest in greenhouse culture and any information you may give will be of great interest and possible practical benefit.

Seattle, Wash. Rev. John W. Carr

*We have sent Rev. Carr a tear sheet of our Answering Your Questions column for August, 1955, which lists 13 bulletins and books on greenhouse culture.—Ed.*

### Vegetable Quality

Dear Editor:

I read with a great deal of interest your article concerning the growing of potatoes with taste appeal as well as eye appeal. It seems to me that this should extend to practically everything that we grow.

Do you realize that the vast majority of the people do not have the opportunity to know what good vegetables and fruits are? This applies not only to the buying public but to many growers themselves. We are so obsessed with volume production that we are neglecting the quality.

There has grown up in the last few years a demand from the supermarkets for standardization and to reduce the number of varieties grown to a few. I say reduce the number grown because they are not content to reduce the number they offer for sale themselves but also those sold by outside sources. They don't want customers coming in their markets asking for varieties they don't have. Through their terrific buying power, they can go a long way to enforce compliance. There has even been the suggestion that if the growers don't voluntarily comply, it will become a task for our Congress and the legislatures of the various states to see that they do.

We have heard a great deal about "less government in business and more business in government." Apparently these concerns want the government to let them alone but not to spare the rod when it comes to the other fellow.

Canton, Ohio

Roy Longenecker

### Greenhouse Insurance

Dear Editor:

The greenhouse operator can well afford to keep a roll of polyethylene plastic film in stock during the winter months in case of windstorm or hail damage to his glass. The film can quickly be applied to the greenhouse to cover large broken areas and protect the growing crop until permanent repairs can be made.

The accompanying photograph shows temporary repairs to a greenhouse of the



horticulture department's range on the Purdue University campus, Lafayette, Ind. The windstorm had taken out all the ventilators and broken out a great deal of glass. Without this temporary repair, the greenhouse would necessarily have been abandoned until permanent repairs could have been made.

It is anticipated now that this covering will last until spring so that repairs can be made under more favorable conditions.

Lafayette, Ind. N. K. Ellis

AMERICAN VEGETABLE GROWER

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Film made of BAKELITE Brand Polyethylene makes packages "more attractive, the gleam of the polyethylene helping to increase the brilliance of the fruit . . . printing on the bag stays brilliant . . . bags are stronger and more durable than with other flexible films. And, because with polyethylene bags there's less moisture loss and less shrinkage, fruit lasts longer at room temperature."

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**"Better than any other packaging"**

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The trend today for fruits and produce is to package in polyethylene film. Get started. Strengthen your hold on your markets. See your supplier today about packaging in film made of BAKELITE Brand Polyethylene.

***It pays to package in film  
made of***



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## Stauffer's CAPTAN 50-W for Disease Protection

Damp-off and root rot on beans and peas, early and late blight on potatoes, tomato blights, and the numerous diseases that attack cucurbita and carrots are halted by Stauffer's CAPTAN 50-W. Our customers tell us they enjoy higher yields, bigger size, exceptional finish and color, unusual keeping qualities...when Stauffer Captan 50-W is used to control these characteristic diseases of vegetables. We have—and will gladly send—an informative bulletin on Stauffer's Captan 50-W.

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Kill those weeds, germinating weed seeds, nematodes, soil fungi and insects and you'll have a big growth of healthy plants to set out. One application of VAPAM 4-S does the work...no special equipment is needed...no ground coverings...you can treat *acres* in a day! VAPAM has been used with remarkable success in several states and it is now available nationally. Send for a Stauffer VAPAM Vegetable seedbed bulletin.



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Leaf hopper  
Leaf miner  
Mealy bug  
Mealy plum louse  
Mexican bean beetle  
Oriental fruit moth  
Peach tree borer  
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Purple scale  
Red-banded leaf roller  
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On carrots: Septoria, cercospora  
On cherries: Leaf brown rot  
On cucurbits: Angular leaf spot, anthracnose, downy mildew  
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On peaches: Brown rot and peach scab  
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On roses: Black spot  
On strawberries: Leaf spot and grey mold fruit rot  
On tomatoes: Early & late blight, anthracnose, stemphylium

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# Grow Your Own HARDY PLANTS

**Greenhouse-grown plants well protected in the field  
produce early money-making yields for Illinois growers**

By ELDON S. BANTA

WHEN 1,700-acre Metzler Orchard Company, Cobden, Ill., started growing vegetables as a sideline enterprise a few years ago, Manager Logan Colp found early tomatoes one of their most profitable crops.

Colp's problems in growing early tomatoes have been many, but the biggest have been growing plants economically and protecting them when

Interior of Metzler plastic greenhouse. Tomato plants are at left of walk, pepper at right. Inside layer of plastic is held to rafters and sides with laths.



Plastic greenhouse at Metzler Orchard Company, Cobden, Ill., was first one in state. Adapted from U. of Kentucky blueprints, it is 104 x 18 feet, cost \$1,000 with concrete block foundation. Plastic came in rolls 48 inches wide. Outside layer is put on lengthwise, like roll roofing.

transplanted to the field early in April.

In two years he has gone far in overcoming these problems. He grows the plants in an inexpensive plastic greenhouse and safeguards the tender transplants from early spring freezes by using plant protectors.

The plant growing idea sprang from an experience two years ago with 2 acres of Sioux tomatoes. Part of the plants were purchased in the South and the remainder from a local greenhouse grower. The southern plants arrived in good condition, and were healthy plants with adequate roots. The greenhouse plants were grown in 2½-inch plant bands and transferred directly to the field at day of planting, band and all.

The southern plants were set on April 12 and the greenhouse plants on April 7. Starter solution of 10-52-17 (Bonro) was applied to each. No plant protectors were used and no severe frost damage occurred. However, about the first of May three days of cold north wind "burned" the foli-

age some, with damage less severe on the greenhouse plants.

Recovery was more rapid with the greenhouse plants and within a week first blooms were open. It was two weeks before the southern plants bloomed, having taken longer to recover from the cold injury and transplanting. Application of a fruit setting chemical helped in getting a fair set on the first clusters.

At the close of harvest when all expenses were calculated against the total returns for each group of plants, the greenhouse-grown plants made the most money, even though they cost \$20 per thousand. Total yield per plant was about the same, but the greenhouse plants produced good yields early when they market price was high. This made the difference.



One of two thermostatically controlled Kur-Mor heaters used in Metzler greenhouse. Plants are California Wonder peppers. Bottled gas.

To pursue the advantages of greenhouse plants, Colp last spring built a plastic greenhouse for the growing of his own plants. The house is the same as the University of Kentucky blueprint, except it is 104 feet long instead of 84 feet, and has a concrete block foundation. Timber for the framework was cut on the farm. Total cost of the building including materials and labor came to \$1,000.

The house holds 22,000 tomato plants in 3-inch plant bands. Two thermostatically controlled Kur-Mor gas heaters supply warmth, and even during the very low temperatures last March kept plants safe.

The only difficulty experienced last year with the plastic house was an uneven growth of plants. Plants next to

(Continued on page 42)

# Can You Afford Not to STERILIZE?

**Steam sterilization of soil is now standard procedure with smart greenhouse growers**

By J. R. KAMP and G. M. FOSLER  
*University of Illinois*

EVERY up-to-date grower of greenhouse crops, vegetable or bedding plants, should have soil sterilization equipment. This is as true for operations which use soil only once as for bench crops where the same soil may remain in place for years. In the long run, sterilization will save you many dollars and headaches.

Soil sterilization, if done properly, destroys most organisms which could cause difficulty. Furthermore, steam sterilization improves soil structure. The term "sterilization" is not quite accurate as we use it here. Pasteurization would be more correct since soil is not made sterile in the sense that all life is destroyed. It is, however, made relatively free of soil-borne disease organisms, weed seeds, insects, and other pests.

How about weed seeds? No matter where we get soil, it is literally loaded with them. This means valuable time spent in hand-weeding flats, pots, and benches unless the seeds are destroyed by thorough sterilization. Soil stored experimentally in jars for as long as 70 years still contained many viable weed seeds. And weed seed in herbarium specimens, air-dry for over 100 years, showed some germination. Thus, even fields cultivated clean for a period of years will not be weed-free as a source of greenhouse soil.

Insect problems with unsterilized soils are less important, but still quite common. Fresh field soil may contain cutworms, grubs, slugs, and the like. In many areas too, nematodes might be brought in. And once introduced, they are hard to control. Earthworms, not considered beneficial in greenhouse soils, would also be killed by sterilization.

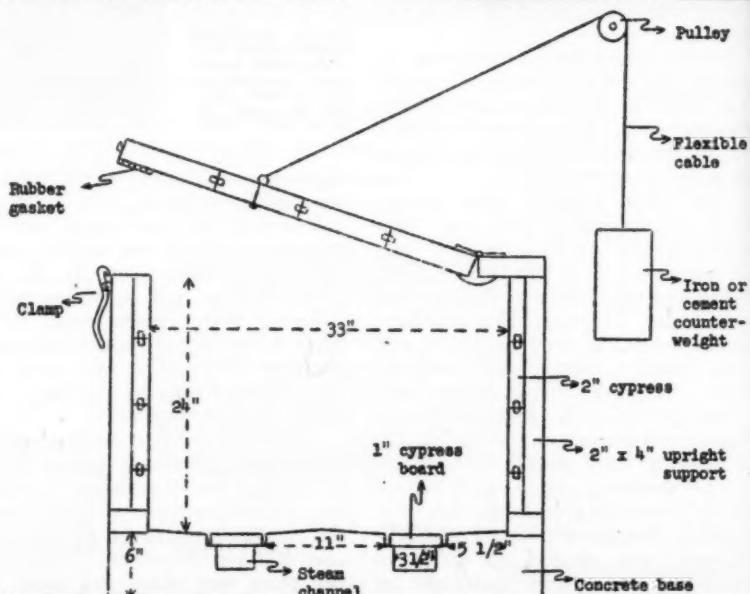
Disease control is undoubtedly the most important single purpose of sterilization procedures. This is particularly true for bench-grown crops such as tomatoes, lettuce, cucumbers, and various flowers. Here there may be a gradual build-up or spread of

disease organisms over a period of months or years. But disease can also be disastrous in short-term growing units such as seed beds, flats, and plant containers. If you've ever experienced losses from damping-off, perhaps you've already been converted to sterilizing.

The build-up of disease organisms in field or garden soils where the same crop has been grown for several years in succession is often observed. At present, rotation of these crops to clean soil plots is about the only practical solution. In the greenhouse, sterilization rather than rotation is our best means of control for soil-borne disease organisms.

Many instances of soil sterilization which failed to control soil-borne

One method of holding sterilizing covers in place consists of strips of wood wedged between two benches. Each strip consists of two 1 x 2's tongue-and-grooved to slide, one into the other. They are extended to fit tightly between bench being sterilized and adjacent bench. Bolts are tightened to hold them in place.



Cross-section view of sterilizing box designed by University of Illinois workers. Box is ideal for sterilizing pots, flats, containers, tools, and plant supports. Plants and instructions may be obtained by writing to 100 Floriculture Bldg., U. of Illinois, Urbana.

AMERICAN VEGETABLE GROWER

sterilizing box is adaptation. Concrete blocks the side, and

diseases a answer is be thorough be treated selves as plant sup fact, anyth disease or some point disease or in an o spread mo



Lengths of old iron pipe are commonly used to hold sterilizing covers in place. Pipe is laid on cloth at both sides of bench. Though effective, this method has disadvantages: pipe is clumsy, hot to handle, and can tear the cloth.



New method of holding down sterilizing covers was devised by greenhouse foreman at University of Illinois. He made the weights, using flower pots for molds, and inserted a length of No. 9 wire into moist concrete. Wire was bent at other end to hang onto metal eyelets spaced 4 feet apart along the edges of the cloth on both sides. Weights are easy to handle.



Sterilizing box made of sheet transite has a sliding front for easy access. Carts of soil can be wheeled right into box for sterilizing.

natural enemies among the micro-organisms are present.

**How to Sterilize**—Soil can be sterilized with heat, electricity, or chemicals. But without any reservations, we recommend steam as the best all-round method. If you do not have a steam heating system, one of the portable steam generators now on the market could fill the bill. In our estimation, the portable steam generators made by Lord & Burnham (Irvington, N.Y.) and Rough Bros. (4227 Spring Grove Ave., Cincinnati 23, Ohio) are the best for greenhouse use. High-pressure steam (15 to 100 lbs. or more) is not necessary; a low-pressure system (4 to 15 lbs.) will do the job, although more slowly. *For thorough sterilizing, maintain a temperature of 180° F. for 30 to 45 minutes.*

Soil sterilization can also be done with hot water, but this puddles the soil badly. Formaldehyde and other

chemicals such as chloropicrin have their place for certain special situations or where steam is not available. But when used, the greenhouse must be clear of all plants. These volatile chemicals give off poisonous fumes which will injure growing crops (and human beings too). Electrical devices for sterilizing are somewhat hazardous and seldom used.

**Sterilizing Bench Soils**—Before a bench is steamed, all soil amendments such as manure, peat, sand,



Sterilizing chamber at the Frank Oechelin Co. range, Cicero, Ill., was designed for fumigation of potted plants, can also be used for steam sterilizing. Plants are placed on shelves, or carts of plants can be wheeled in. Methyl bromide fumigant is released, then exhausted by pumps into outside air after proper interval.

and even superphosphate should be added so that they too are sterilized. Have the soil mixture worked up loosely, and uniformly moist (*not wet or dry*). Of various ways of introducing steam down the bench, the Thomas Method is used most widely now. Several lines of  $\frac{3}{4}$ -inch field drainage tiles, or perforated downspouting, are laid on top of the soil. Space the lines 18 to 24 inches apart;

(Continued on page 38)

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Sterilizing box used in Oregon, Ill., greenhouse is adaptation of University of Illinois box. Concrete blocks instead of wood were used for the side, and one was hinged for easier access.

diseases are on record. But the answer is simple—sterilization must be thorough. Not only the soil should be treated, but the benches themselves as well as tools, flats, pots, plant supports, and containers. In fact, anything which might harbor disease organisms that could at some point reinoculate the soil. A disease organism which finds itself in an otherwise sterile soil will spread more quickly than when its

MARCH, 1956

# Prepackaged Produce... A Hit with Housewives!

**Convenience and sanitation top the list of reasons why Mrs. Consumer favors prepackaged produce**

By ISABELLE M. THOMAS

**W**HY do I and millions of other housewives prefer prepackaged vegetables and fruits? The answer is crystal clear—speed in shopping and meal preparation plus convenience and sanitation.

Three well-planned and nutritious meals a day are a must for my family as well as for most American families. But the one which takes the most careful planning and the greatest amount of preparation in the Thomas family is the evening meal. When my husband and I get home practically at eventide, and our 11-year-old son, Billy, breezes in from school and play, we are really looking forward to our evening meal—the one period during the day when we can relax and enjoy family life. The squeeze—and it's a real one—comes in trying to find time enough to prepare this meal properly.

Our family is one of about 15 million in the United States where both husband and wife are wage earners. The extra money I earn enables us to have a much higher standard of living and to pay for many kinds of extra services which we might otherwise have to forego. To do this, however, I need to have many things done *for me* which I might do myself if I were a "stay-at-home."

Prepackaged and "kitchen-ready" foods of all kinds rate very high on my list. If the requirements of millions of other two-income families like mine were totaled up—not to mention the millions of full-time homemakers who also want these services—the potential market for prepackaged or unitized produce really looks like something.

Except for cole slaw, salad mixes, and soup mixes, however, all too few vegetables and fruits are available in prepackaged form throughout the year. Fortunately, we can buy prepackaged spinach about 9 or 10 months of the year—and fresh spinach really tops our list. Prepackaged spinach, which is completely ready for the pot, is just as tasty and nutritious as bulk spinach. But

The author of this article occupies a unique position. From her vantage point as secretary, statistician, and research worker with fruit and vegetable marketing expert Dr. M. P. Rasmussen, of Cornell University, Mrs. Thomas can look at the produce industry with an "inside" view. But as a working wife and mother of an 11-year-old son, she is well-equipped to appraise it from the "outside" viewpoint of the busy housewife. She admits to being a "grab it and run" shopper—who likes her produce prepackaged! —Ed.

with "kitchen-ready" spinach I don't have to spend any of those precious minutes sorting, cutting, and washing—or cleaning up a dirty sink.

Prepackaged carrots also rate well up at the top of my list. There was a time when I wouldn't buy carrots unless the fresh green tops were attached. Given a choice today, I choose prepackaged carrots every time. Aside from the fact that they are just as nutritious as bulk carrots, I don't have to lug home the tops (which always found their way into my garbage pail anyway) and my kitchen sink doesn't get messed up with a lot of dirt from the unwashed carrots. The space I save in my refrigerator is also important.

When prepackaged Brussels sprouts are on the market, we buy them, and the same goes for kale and tomatoes. One of the truly startling helps has been the packaging of topped and washed radishes in 4- and 8-ounce film bags. How they do cut down time in making salads of all descriptions! I serve radishes much more frequently when they are washed, topped, and packaged.

The potato is a natural for prepackaging, but not nearly enough are being put up in packages the way we housewives want them. Despite



Prepackaging makes it easy for the "grab it and run" shopper. Photo courtesy Cornell University.

the availability of transparent film or open-window bags, too many potatoes are packaged in such a way that housewives can't see the spuds without ruining their fingernails loosening wire or tape fasteners.

I much prefer to see the potatoes I buy, but don't want to pick them out individually from a bulk display. Furthermore, there is little doubt that housewives would like it much better if only *washed* potatoes were packaged. To me there is nothing more disagreeable in meal preparation than to scrub dirty potatoes at the kitchen sink. If good-quality, washed potatoes are packaged in film or open-window bags, sales will assuredly increase.

I'm not the only housewife who thinks this way. A short time ago customers of a number of New England supermarkets were given choices of potatoes packed in various types of bags. Almost two of every three customers chose those which were washed and packed in transparent film bags. A similar test currently being conducted in New York (Continued on page 43)

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# TOMATOES and SQUASH ... Made to Order

**Plant Breeder Tapley learns grower-canner  
needs and tailors varieties accordingly**

By ROBERT A. WESSELMAN

TWENTY years ago New York state farms were producing tomatoes for canning and there were several varieties to choose from, but each exhibited weaknesses deplored by either the grower or the processor. This was a challenge which intrigued vegetable specialist Bill Tapley, working at the state experiment station in Geneva.

The growers wanted a tomato which would be a consistently heavy

surface. Completely red fruit would mean better color and less waste.

Good fortune was on his side for he soon found not one, but three combinations whose uniformly-colored fruits seemed to meet the exacting requirements of both grower and processor. To confirm his opinion, Tapley sent some of each of the plants to a few commercial growers for trial. Their reactions left little doubt as to the



Red Top tomato developed by Tapley is a pear-shaped paste type with a shorter growing season than its predecessors. Deep red in color and heavy-yielding, it has low moisture content.

Gem, Longred, and Red Jacket, three Tapley-bred varieties released in 1947, now make up 90 per cent of the canning tomato acreage in New York state.

yielder, at least fairly resistant to disease, and which would mature properly on New York soils in New York's season. The cannery operators wanted reliable yielders, too, but also looked for early varieties which would spread the processing season. Their requirements regarding color, size, and general good quality were strict. Tapley hoped to meet all of these requirements—and give something extra to boot.

Those who worked with the Geneva scientist in his vast plantings began to learn a new term, "uniform color gene." That was the added bonus which Tapley was striving to develop—a characteristic not yet incorporated in canning varieties. The uniform color gene would eliminate the dark green shoulder on unripe tomato fruits, which lightened only slightly as the tomato became red on the upper

merits of the three tomatoes.

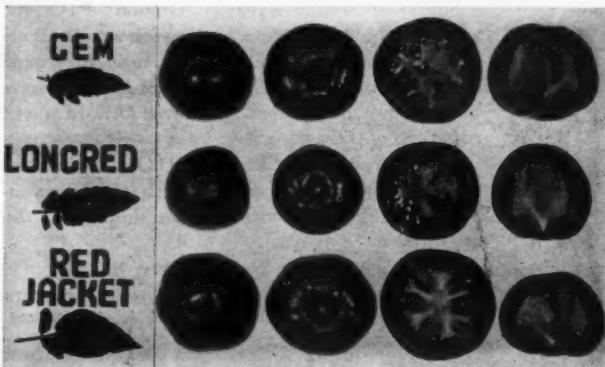
With the official introduction of Gem, Red Jacket, and Longred in 1947, more commercial growers were given an opportunity to field test them and Tapley continued his yield comparisons on the experiment station farms. These trials indicated



Prof. Bill Tapley with two squash of new processing variety he developed. It will be tested further before being named and released to seedsmen.

that growers could expect a greater tonnage from the new varieties.

Seedsmen, who got the first release of seeds in 1948, repeatedly underestimated the demand. By 1952 over 90 per cent of the canning



tomato acreage in New York was being planted to Tapley's tomatoes!

Now that seedsmen are able to keep up with the demand, growers in other areas are getting an opportunity to try the Tapley originations. Canadian growers are already devot-

(Continued on page 40)



Another Years-Ahead

FIRST BY  
FERGUSON

4-Way Work Control  
on the  
FERGUSON 35

## How Ferguson Variable-Drive PTO Provides Both Ground Speed and Engine Speed Drive

At last! *One* tractor that lets you operate PTO-driven implements at either *ground speed* or *engine speed*, depending upon the need.

Simply move the lever to "Ground" PTO and you're ready to do a perfect raking job . . . distribute seed or fertilizer evenly in direct ratio to ground covered—because the PTO shaft will always revolve the same number of times per foot of forward travel, regardless of tractor speed.

Or you can select "Engine" PTO and the shaft rotates in ratio to *engine speed* for such jobs as harvesting, mowing, belt work. It's that simple. *It's that convenient!*

And, in addition, you get those other 4-Way Work Control features that have come to mean so much to Ferguson owners: Quadramatic Control, Dual-Range Transmission and "2-Stage" Clutching—all designed to help you farm more, work less.

Ferguson Dealers have had years of experience in sales and service of the *original* Ferguson System. Call your local Dealer today for a demonstration of the Ferguson "35" . . . and *feel the difference* on your day-to-day jobs. Ferguson, Racine, Wisconsin.

# Ferguson

FOR HARVESTING you'll use the power take-off that's driven directly from the engine.

SEEDING-FERTILIZING utilizes "ground" drive for even distribution at uniform rate.

FOR RAKING put the PTO shift in "ground" position for rake action in ratio to forward travel.



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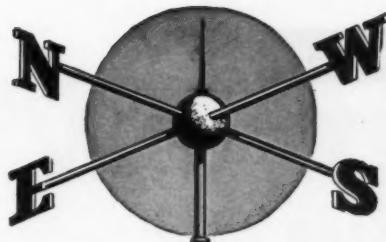
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# NEWS

- Ohio Growers Learn "Chain of Refrigeration" Is Important
- Profitable Acreage Expansion Is Seen for Maryland Growers

## Oppose Subsidies for Vegetables

**OHIO**—More than 600 growers attending the annual meeting of the Ohio Vegetable and Potato Growers Association went on record as opposing subsidies and price supports for vegetables.

At the Cleveland meeting growers heard Dr. W. T. Pentzer, chief of the Biological Sciences Branch, Marketing Research Division, USDA, call for a "chain of refrigeration" which must extend from the time of harvest to the time of retail sale.

The closer a vegetable can be maintained at its optimum storage temperature, the longer it will keep and the quicker it will sell, he declared. However, he cautioned growers that only vegetables free of mechanical damage and decay when harvested will have good storage and transportation qualities.

Members re-elected the 1955 officers, led by Clinton Seitz, of Cincinnati, president.—E. S. Banta.

## Opportunity to Expand Acreage

**MARYLAND**—Growers attending the annual meeting of the Maryland Vegetable Growers Association learned that there is opportunity for profitable expansion of vegetable acreage in the state.

Charles W. Reynolds, assistant professor of vegetable crops at the University of Maryland, reported on data of carlot shipments of vegetables received at the Baltimore terminal. Judging by the carlots purchased from other states, Maryland growers could profitably expand acreages of the following vegetables:

Asparagus, for fresh market and processing; beets, especially for processing; broccoli, for fresh market as a fall crop, and as a summer crop in Western Maryland; carrots, for fresh market and processing; cauliflower, as a summer crop in Western Maryland and possibly as an early spring and late fall crop on the Shore; cucumbers, as a late or fall crop; lettuce, as a summer crop in Western Maryland, and as spring and fall crops for the rest of the state (Note: irrigation is almost a necessity); and sweetpotatoes for storage.

They also heard Francis C. Stark, professor of vegetable crops, report on factors to be considered in growing snap beans. One important factor, he said, is to use only Western-grown certified seed, to guard against viruses and other diseases which build up rapidly in seed grown in other areas. He also suggested treating seed with insecticide and fungicide.

The 1955 officers, led by President Ted Schmick of Preston, were re-elected. John Foard, of Hyde, is vice-president, and Andrew A. Duncan, of College Park, is secretary-treasurer.

## Full-Time Sales Effort

**CONNECTICUT**—At the annual meeting of the Connecticut Vegetable Growers Association held at Storrs, Walter Pretzer,

## VGAA STAND ON SUBSIDIES

The Vegetable Growers Association of America at its recent Washington convention took a firm stand against subsidies and price supports. The resolution passed by the growers stated:

"We are opposed to public subsidies and government price supports for the production of vegetables because they decrease efficiency of production, increase the cost to the consumer, and in the end involve government regulation and artificial controls of production itself. We urge all other segments of agriculture to embrace this principle as rapidly as possible and thus avoid the otherwise ultimate socialization of agriculture and the further degeneration of the individual."

A copy of the booklet containing this and other resolutions passed at the convention may be obtained from Joseph S. Shelly, secretary, Vegetable Growers Association of America, 528 Mills Bldg., Washington 6, D.C.

director of organization of the Vegetable Growers Association of America and proprietor of the Rutenik Gardens at Cleveland, Ohio, told how vegetable growers must adapt their businesses to changing market and competitive situations.

He explained how three individually owned farms in the Rutenik family formed a sales co-operative to promote, manage, and expand the sale of their collective production. A young man was hired as general manager, with his office in the Northern Ohio Food Terminal. He has full authority over quality control both on the farm and in the market. Pretzer reported that they have operated six months under this system with gratifying results and satisfaction to both themselves and the distributors they serve.

"This is only a beginning, as we can now see additional advantages in our sales organization," he said. "What we have done is to put our sales effort on a full-time basis. Individually we could not afford it, but collectively we can. What we have done anyone else can do, or lose out in the harvest of profit dollars."

Pretzer urged growers to co-operate with others for the good of all concerned. He urged growers to attend and support county

(Continued on page 26)

## Know Your . . . VEGETABLE SEEDS

By VICTOR R. BOSWELL  
U.S. Department of Agriculture

### SPINACH

THE so-called seed of spinach is not a seed but a very small fruit, either smooth and round or spiny and irregular, containing a single seed.

Since spinach seed is not an attractive crop for American growers, we normally get most of our supplies from The Netherlands and Denmark. Nevertheless, spinach seed can be grown in the United States. Early in World War II this country suddenly became the world's greatest exporter of spinach seed instead of the world's greatest importer.

In 1954 we grew less than 300 acres of seed spinach in contrast to the average of more than 5,500 acres during 1941-45. The average yield now is about 600 pounds per acre in this country. Domestic seed comes largely from the Pacific Northwest, where the summers are relatively cool.

Spinach is unusual among vegetable plants in that about half the plants are males and bear no seed. A few plants in most stocks bear both male and female flowers and can set seed without the presence of pure males. The remainder of the plants are pure female and set seed only if males are near by.

Recently H. A. Jones, of the USDA, has produced stocks consisting of only pure males and pure females. Such stocks can be used in producing F<sub>1</sub> hybrid spinach seed. The males of a chosen female parent line are removed before they bloom, and the females of the line are pollinated by the males of a chosen pollinator line planted in near-by rows.



Like beet, spinach is wind-pollinated; the pollen is extremely small and is carried long distances, necessitating isolation of seed fields from other varieties by a mile or more.

The seed matures unevenly and is relatively troublesome to harvest, cure, and thresh satisfactorily. Spinach seed is relatively short-lived, deteriorating rapidly under warm and humid conditions.

NEWS FROM NAUGATUCK

# DURASET-20W increases Lima Bean yield 80% to 100%



Discovered by our research teams, DURASET\*-20W, a new flower and fruit-setting hormone, was cooperatively developed with many state and federal experiment stations.

1. Increases yield—insures first pick
2. Gives more uniform bean maturity
3. Allows a continuous planting schedule
4. Insures continuous harvesting operations
5. Is easy to use

Tests on tomatoes, strawberries, peppers, apples and small seeded legumes show promising results with Duraset.

Order DURASET-20W from your local supplier today.  
Write, wire or phone us if unable to locate source of supply.

\*U.S. Patent No. 2,556,665

SEE—Naugatuck Chemical Division, United States Rubber Company, at work on NBC's "Color Spread" TV spectacular, Sunday, March 25, 7:30 PM, EST



## United States Rubber

### Naugatuck Chemical Division

Naugatuck, Connecticut

producers of seed protectants, fungicides, miticides, insecticides, growth retardants, herbicides: Spergon, Phygon, Aramite, Synklor, MH, Alanap, Duraset.

## Answering Your QUESTIONS

Don't let your questions go unanswered. Whether large or small, send them with a three-cent stamp for early reply to Questions Editor, AMERICAN VEGETABLE GROWER, Willoughby, Ohio.

### TOMATOES FOR THE NORTH

Some time ago you listed in your magazine several early tomatoes to plant in the North. I cannot remember which issue it was in so would you please list them again and tell me where the seed can be obtained.—Wisconsin.

The bush-type tomatoes recommended for the North are Cavalier, Meteor, Mustang, Victor, and Early Chatham. The W. Atlee Burpee Co., Philadelphia 32, Pa., lists Victor, as does the Ferry-Morse Seed Co., Detroit, Mich., and it is possible that they can obtain seed of the other varieties for you too. The Burgess Seed and Plant Co., Galesburg, Mich., lists Early Chatham and may be able to obtain seed of the other varieties for you.

### PEANUT HULLS FOR MULCH

We have used on 18-inch wide mulching paper on each side of the row of tomatoes in our greenhouse to keep the weeds down and the fruit off the ground but from our experience I believe a more flexible material would be better. Can you advise the source of peanut hulls and something regarding costs?—Michigan.

Peanut hulls can be purchased from the Wells Brokerage and Distributing Co., National Bank Bldg., Suffolk, Va. They are selling for about \$10 a ton plus freight charges.

### MOISTURE MEASURING DEVICES

We have overhead irrigation for our muskmelons and watermelons. How can I determine how often and when they should be watered?—Iowa.

Try one of the moisture measuring devices on the market. As listed in the July Buyer's Guide issue, they can be obtained from American Farm Equipment Sales Co., Crystal Lake, Ill.; General Scientific Equipment Co., Hamden, Conn.; National Agricultural Supply Co., Fort Atkinson, Wis.; Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N.J.

### APHID CONTROL ON MELONS

For several years my cantaloupes have been destroyed by melon aphids. What can you recommend for controlling this pest? Also, I would like to grow honeydew melons and would like some information on their culture.—Kansas.

The most widely recommended material for the control of melon aphids is malathion, either as a spray or dust. The most effective means of control is by use of spot applications of this material early before the aphids have built up a heavy infestation. Coverage of the lower leaf surfaces should be emphasized.

We would not recommend a commercial planting of honeydew melons in our reader's section of Kansas although they are grown fairly successfully in some areas of western Kansas. Honeydew were planted in the variety plots at Kansas State College but no marketable melons were harvested.

### NON-HARDY ALFALFA SEED

I noticed in a recent issue an article on cover crops and I would like to know where to get some of the non-hardy alfalfa seed with the deep tap root.—Ohio.

Non-hardy alfalfa seed can be obtained from Northrup, King & Co., Minneapolis, Minn. Their brand name is Terre Verde.

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GROWER



## NEW, MODERN ROW-CROP SPRAYING for EVERY grower!

### with the John BEAN 8-RC AIRCROP ATTACHMENT

Now, by using this new and economical John Bean air attachment, any grower with average acreage can afford the top-notch crop protection of modern air spraying. The tractor driver, as a one-man crew, will spray swaths from 30 to 40 feet wide, 25 to 30 acres per day, and do it with very few water hauling trips. He can also spray dilute, semi-concentrate or concentrates — the Aircrop handles them all!

No longer is there a need for maneuvering an unwieldy spray boom over rolling ground, around obstacles in fields and through narrow gates. The Aircrop sprays wherever the tractor takes it — sprays to either side to take ad-

vantage of wind direction. Full 180° rotation is provided.

Straight-through air delivery from a powerful 21-inch axial flow fan is engineered for maximum controlled performance. Spray outlet is tapered at the bottom to protect nearby rows.

For spraying the rows straddled by the sprayer there's a four nozzle boom. And note this — adjustable vanes and deflectors not only adapt the Aircrop 8-RC to the particular field conditions, they quickly convert the unit to an efficient orchard sprayer. Ask your John Bean dealer for a demonstration.

There's a John Bean high-pressure, boom type sprayer for every purpose.



6 to 14 row models

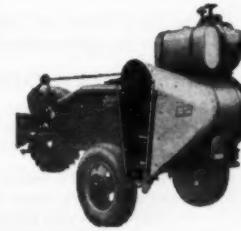
All new HI-CROP with 6-ft. clearance for tall corn, adjustable boom heights for any row crop.



Write for John Bean  
Catalog L-1144 and  
L-1120 today!

### BIG CAPACITY 15-RC AIRCROP SPRAYS 60 FT. SWATH, UP TO 24 ACRES PER HOUR...

Here's large scale crop protection at costs that make any other type of spraying expensive by comparison. See your John Bean dealer for complete information.



**John BEAN**

Division of Food Machinery and Chemical Corporation

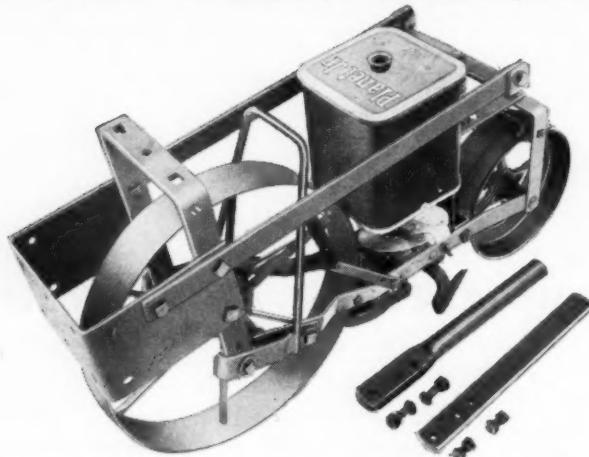
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# COMPARE the new

## Planet Jr.<sup>®</sup>

### seeder unit no. 9192X

**with any other seeder—before you buy!**



For over 80 years Planet Jr. has concentrated on the development of planting equipment, specializing on the planting of seeds in rows.

Now Planet Jr. is proud to recommend the 9192X to growers who rely on diversified planting for continuous cash income. The 9192X Seeding Unit handles seeds from finest grasses and vegetables to bush limas—and row-plants so accurately it is guaranteed to drop a prescribed number of seeds per foot—thereby saving both seed and money.

In addition, the Planet Jr. No. 9192X Seeding Unit is simple to clean, easy to fill and is built for quick changing of seeding plates—so it saves time, work and energy.

See the Planet Jr. Seeder Unit No. 9192X. Compare its low cost—its low maintenance. Then you be the judge.

#### OTHER 9192X ADVANTAGES

**PRESS WHEELS**—a wide number of press wheels to choose from—flat, concave, split, open-center and rubber-tired.

**DRIVE WHEELS**—choose from flat, flanged and furrow-flanged drive wheels—whichever suits your soil conditions best.

**STANDARDS**—there are a wide variety available for mounting 9192X seeder to your tool bar—either front, rear or side-offset.

**OPENING PLOWS**—a large selection with planting range from 0 to 3½ inches in depth—from 1 to 6 inches in width of furrow.

**FINEST  
IN THE FIELD**



#### Write for Details Today!

**S. L. ALLEN & CO., Inc.**

3419 N. 5th St., Phila. 40, Pa.

Please send me complete details on Planet Jr. 9192X Seeder Unit.

Name.....

Address.....

City..... Zone..... State.....



Chris-Cross watermelons on their way to market.

## CHRIS-CROSS Resists Disease

**Grower-developed watermelon is grown over wide area**

WATERMELON growers all over Iowa know and like the Chris-Cross watermelon developed over the past 12 years by Chris Christensen, Montrose grower. With but little advertising, it has spread from farm to farm on its merits until now over half the commercial crop grown in Iowa is of this striped variety.

The first Chris-Cross watermelon was a chance cross—a striped, round melon in a Hawksbury patch. Since then it has been left to chance except for selecting melons worthy of propagation.

"My aim has been to develop a round, striped, Dixie Queen-type melon that would not sunburn, with black seeds to please the eye—a melon that would grow anywhere and be good to eat," says Christensen.

Seed is grown on wilt-infected land, and is really wilt-resistant. It is also resistant to anthracnose, and does not get hollow heart.

#### Good Carrying Qualities

"Chris-Cross melons are thin-skinned, but have an outside skin like leather that, along with solid flesh, gives them good carrying qualities," says Christensen. "They have resistance to disease and vigor to take it when the going is tough. They have appearance to sell them and quality to bring the buyer back."

During the years the melons were grown on old land with short rotation or none at all. No seed treatment or spraying was practiced. Only melons on strong vines could make the grade. This has built in resistance to wilt and anthracnose that few melons possess.

"I knew what I wanted in a melon and I figured selection would do it," says 72-year-old Christensen.

Chris-Cross is being grown successfully, with very high yields, from Texas to the Carolinas, and Minnesota to Indiana. Wherever it has been tried, it has won growers' acclaim as a good, dependable melon. THE END.

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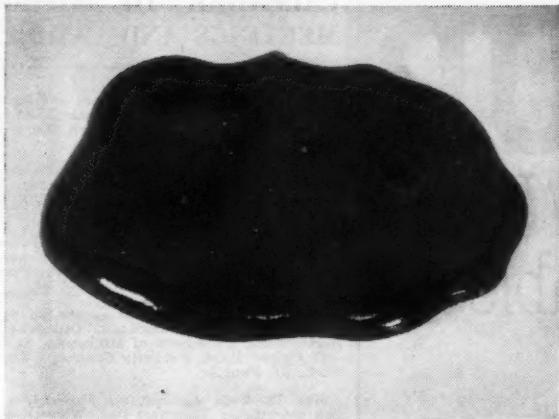
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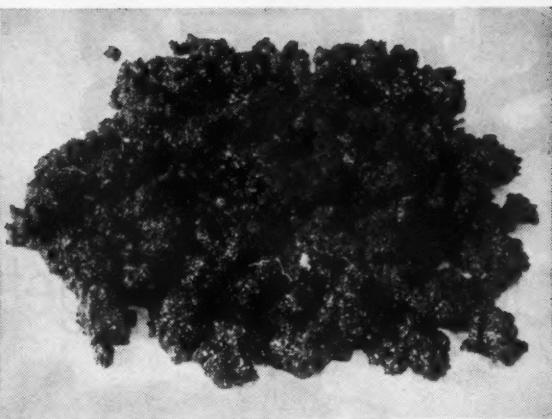
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Soil from a field where no program of maintaining humus has been followed. When saturated with water, soil becomes a sticky, tight, concrete-like mass.



Soil taken from a field rich in humus remains open and porous when subjected to the same test.

Photos: Soil Conservation Service

## SOIL SCIENTISTS AND SUCCESSFUL GROWERS RECOMMEND PLOW DOWN WITH CYANAMID AS...

# Basic Way to Build Humus

Organic matter like straw and stubble, other crop refuse and cover crops is a natural source of humus. And humus, as you know, is a great money-maker. It improves the condition of your soil, provides nitrogen slowly and continuously for maximum yields. But nature needs help. The natural rotting of organic matter when plowed down alone takes a long time, and will actually steal nitrogen from your crop until rotting is complete.

### Cyanamid an ideal plow-down fertilizer

Because organic matter takes up nitrogen while it is rotting, it is important to add a nitrogen fertilizer at plow down. Such a plow-down fertilizer must supply soil bacteria with the foods they need in the *right proportions* for fast, complete rotting of organic matter. Cyanamid supplies just the right balanced diet of nitrogen and calcium for soil bacteria. Instead of rotting slowly and starving your crop, Cyanamid-treated plant refuse or cover crops rot *fast* into a storehouse of plant food for faster crop growth and reward you with maximum yields.

### A balanced diet for soil bacteria

Each ton of Cyanamid supplies 21% nitrogen—

in leach-resistant form—plus as much calcium as a ton of ground limestone. These are ideal proportions for humus-forming bacterial action. The nitrogen gets your crops off to a better start and *stays with them* until harvest. For most crops, on most soils, plow down with Cyanamid actually makes side- or top-dressing of the following crop unnecessary. And the calcium also neutralizes soil acidity.

### Granular form a big advantage

Cyanamid is in free-flowing, granular form, and can be applied with regular spreading equipment any time it is possible to get on the land.

### Proved in tests and long grower use

The importance of plow down with Cyanamid for good soil management and the increased yields and profits that result are widely recognized. Tests and successful grower experiences have proved the value of plow down with Cyanamid. You can prove this for yourself. Test it yourself on part of your acreage or on all. Cyanamid is now readily available from all good fertilizer dealers.

### FREE BOOKLET

For information on how to use AERO® CYANAMID, Granular for plow down, write to American Cyanamid Company, Agricultural Chemicals Division, 30 Rockefeller Plaza, New York 20, N. Y. Ask for free Humus booklet.

# SALES UP

with JOHNSON'S WAX  
for fruits and vegetables!



Fresh vegetables given a "beauty treatment" with Johnson's Wax have maximum eye-appeal. The better they look, the better they sell. Once waxed, many vegetables sell in greater volume and command top prices.

That thin, glossy coat of Johnson's Wax preserves peak freshness and quality. It also greatly reduces losses from shrinkage and spoilage. Any way you look at Johnson's Wax, it is a definite selling aid in the vegetable business.

Shoppers demonstrate their preference for waxed vegetables by moving them out of the stores quickly . . . even at premium prices. And that, of course, means better business all along the line . . . for jobbers, shippers, packers and producers.

Inexpensive and easy to apply, Johnson's Wax can boost the sales of many vegetables. For full information, contact your local Johnson distributor or write: **S. C. Johnson & Son, Inc., Agricultural Waxes, Dept.**

A product of Johnson's Wax Research



## CALENDAR OF COMING MEETINGS AND EXHIBITS

Mar. 8-10—Watermelon Growers and Distributors Association annual convention, Roosevelt Hotel, New Orleans.—J. J. Parrish, Sec'y, Adel, Ga.

Mar. 12-16—Tenth National Conference on Handling Perishable Agricultural Commodities, Purdue University, Lafayette, Ind.—N. K. Ellis, Purdue U., Layafette.

Mar. 19-20—Kern County Potato Growers Association 12th annual convention, Bakersfield Inn, Bakersfield, Calif.—Francis P. Fusateri, Exec. Sec'y, Bakersfield.

Mar. 22-23—Annual short course on vegetables, fruits, and ornamentals, Department of Horticulture, University of Minnesota, St. Paul.—C. Gustav Hard, Publicity Chairman, Dept. of Hort., St. Paul 1.

May 18—Ohio Agricultural Experiment Station Greenhouse Vegetable Day, Wooster.—E. C. Wittmeyer, Dept. of Hort., Columbus 10.

June 14-16—Idaho Shippers Association (including Malheur County, Ore.) annual summer convention, Sun Valley.—Edd Moore, Exec. Sec'y, P. O. Box 1100, Idaho Falls.

June 27-29—South Dakota State Horticultural Society annual meeting, in conjunction with South Dakota Federation of Garden Clubs, Brookings.—W. A. Simmons, Sec'y, Sioux Falls.

July 28-August 4—Eighth annual National Vegetable Week sponsored by the VGAA.

Aug. 14-15—Ohio Pesticide Institute summer meeting and tour, Wooster.—J. D. Wilson, Sec'y, Wooster.

Sept. 27-29—Florida Fresh Fruit and Vegetable Association annual meeting, Hotel Fontainebleau, Miami Beach.—Geo. Talbott, 4401 E. Colonial Dr., Orlando.

Nov. 28-30—Vegetable Growers Association of America, 48th annual convention, Grand Rapids, Mich.—Joseph S. Shelly, Sec'y, 528 Mills Bldg., 17th and Pennsylvania Ave. N.W., Washington 6, D.C.

## Diamond Black Leaf Names General Manager

PROMOTION of George V. Dupont from manager of manufacturing operations to general manager of Diamond Black Leaf Company was announced by Loren P. Scoville, president.

Dupont succeeds John W. Kennedy, who



George V. Dupont

leaves the Diamond Black Leaf organization to return to Diamond Alkali Company as sales manager of agricultural chemicals.

To his new post at Diamond Black Leaf, Dupont brings a broad chemical engineering background. A graduate of Purdue University, he joined Diamond Alkali in 1940 and has served the company in a number of important engineering capacities.



John W. Kennedy

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# NEW

## Heavy-duty plastic tarps

### Larvacover

made of



Tougher, more efficient tarpaulins for large area covering are ready now to make money for nurserymen, vegetable growers and florists everywhere.

Larvacovers, tested by leading state universities, are recommended for low-cost soil sterilization, bulk soil fumigation, waterproofing of greenhouse benches, and light diffusion and insulation.

These heavy-duty, easy-to-handle tarps are made of Monsanto Ultron—a tough, waterproof, mildew-resistant vinyl film. They also resist deterioration when exposed to sunlight, severe weather conditions, fumigants and other agricultural chemicals.

Because Larvacovers have high gas retention, thorough fumigation is possible with a minimum use of toxic agents. Fuel can be saved on steam sterilization. A special Florist Green pigment has been added so Larvacovers can also be used effectively for controlled plant shading.

Larvacovers are supplied in both heavy-duty thickness and standard gauge. There is no fire hazard because the material is self-extinguishing. All standard sizes are carried in stock—custom sizes made to order. Ends have 2-inch hem for tear resistance and good grip in handling. Where seamed, Larvacovers are fabricated electronically with a full half-inch flat seam.

The Ultron vinyl film used in Larvacovers is made by the Monsanto Chemical Company, Plastics Division, Springfield 2, Mass. Mail coupon for full information.



Larvacide Products, Inc.  
117 Liberty Street  
New York 6, N.Y.

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Please send me, without obligation, descriptive literature and prices for new Larvacovers made of Monsanto ULTRON vinyl film. Also name of nearest dealer.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



*Any way you look at it—*  
**Ford gives you the most**

**Most Power!** New '56 Ford gives you more horsepower per dollar than any other pickup truck. Choice of 167-hp. V-8 or 133-hp. Six, both Short Stroke.

**Most Capacity!** Biggest box in the half-ton field! New Ford 8-ft. box on 118-in. wheel base (optional at small extra cost) offers up to 19 cu. ft. more capacity than other half-ton pickups.

**Most Safety Features!** Only Ford Trucks offer a Lifeguard steering wheel and Lifeguard door latches (standard equipment). Seat belts are also available at low, extra cost.

**Most Comfort!** New cab! It's DRIVERIZED! Only Ford has it! New wrap-around windshield with built-in visor. Exclusive seat shock snubbers . . . Custom Cab (available at worth-while extra cost) has 14 luxury features including 5-inch foam rubber seats.

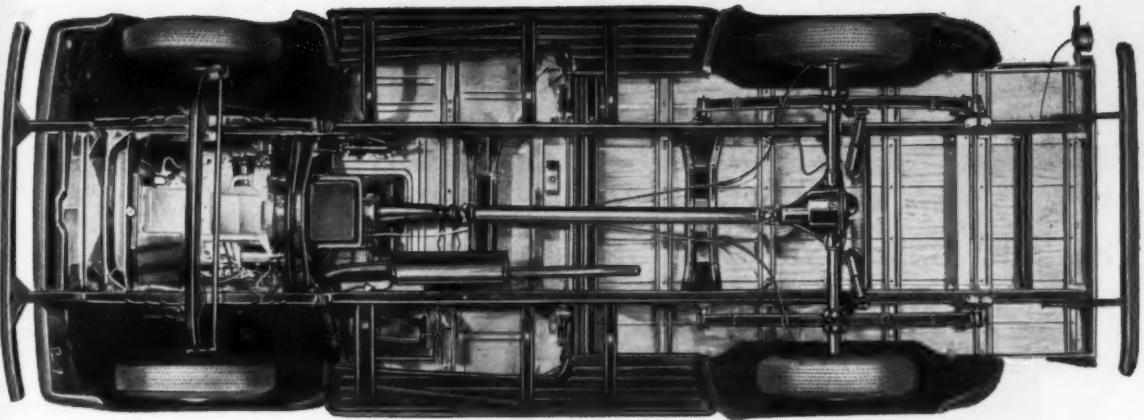


**Compare it!** Compare it with *any* other pickup, and you'll see why you get the most pickup truck for your money in a new Ford for '56.

Compare *power* and *capacity*. You'll find the new Ford Pickup gives you more horsepower per dollar than any other pickup (based on comparison of net horsepower with suggested list price). Ford's new

8-ft. box  
other pick-  
ft. Pickup

Compa-  
Lifeguard  
truck. For  
by itself.

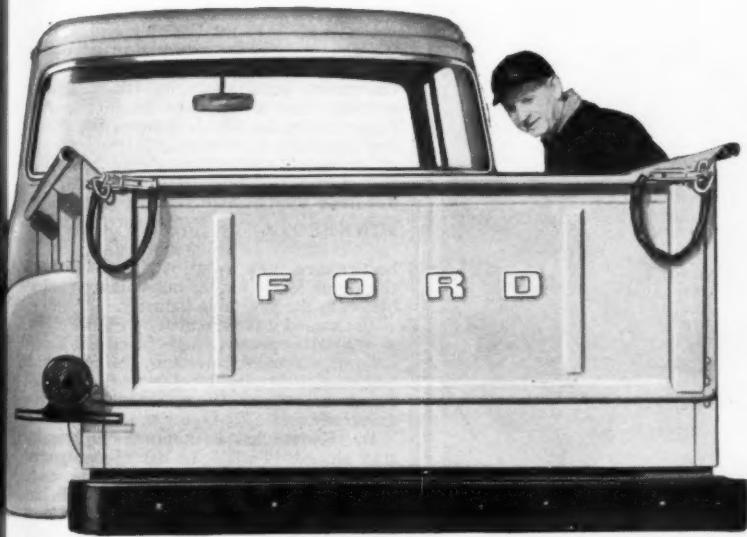


**Bird's-eye view** (left) shows the extra capacity you get in the new 8-ft. box now available on Ford half-ton trucks. **Worm's-eye view** (above) shows the

rugged truck construction throughout, with wide-tread front axle, rugged parallel rail frame, tubular-type drive line and husky hypoid rear axle.

# First Pickup truck for your money

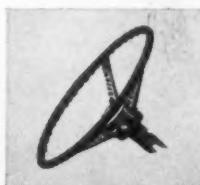
Only Ford gives you Lifeguard Safety Features!



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8-ft. box offers more cu.-ft. capacity than any other pickup in the 5,000-lb. G.V.W. class (6½-ft. Pickup box standard on 110-in. wheelbase).

Compare *safety* and *comfort*. Ford gives you Lifeguard safety features available in no other truck. For comfort, the new Ford cab is in a class by itself. It's **DRIVERIZED!** Only Ford has it!



New deep-center Lifeguard steering wheel helps protect driver from the steering column.



New Lifeguard latches for doors add protection against doors jarring open on impact.

The driving treat that can soon pay for itself... **FORDOMATIC**

Fordomatic ends clutch repairs... cuts maintenance costs... acts as a "shock absorber" for the power train. Fordomatic makes driving easier. Also helps trade-in value. (Available at worthwhile extra cost.)



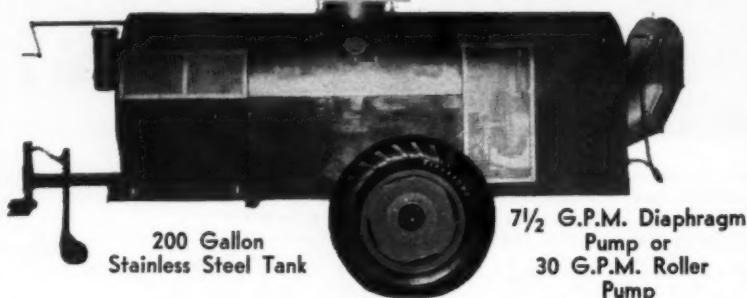
## '56 Ford Economy Trucks

# New for '56

two new models with  
**Stainless Steel Tanks**

For Spraying Dilute, Semi-Concentrates or Concentrates

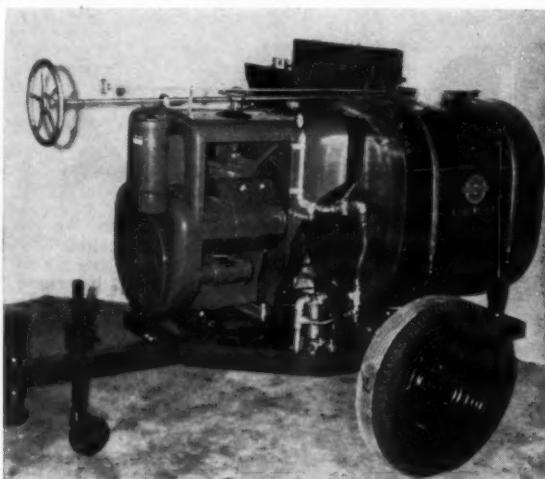
## The 200 Gallon Stainless Streamliner



The new "Stainless Steel Streamliner" with a 200 gallon stainless steel tank will give years of trouble free service at LOW initial cost. "ONE MAN OPERATION", light in weight (Less than 2000 lbs.). This combination dilute, semi-concentrate and concentrate sprayer is acclaimed as the outstanding sprayer of 1956. Other features include dual purpose for both orchards and row crops, adjustable axle as to height and width, and a choice of two special pumps for either dilute or high concentrate application.

## The 100 Gallon Combination Buffalo Turbine Sprayer and Duster

Light enough to be handled on "Hilly" ground with the SMALLEST TRACTOR or A "JEEP"



Large enough for the big grower and small enough for the small grower. The "Buffalo Turbine" combination Sprayer and Duster comes with a stainless steel 100 gallon tank, skid or trailer mounted. Designed for orchard or row crop spraying or dusting.

SPRAYS dilute, semi-concentrates or concentrate mixtures  
DUSTS micronized chemicals, regular dusts or pellet baits  
DISTRIBUTES Pellet or Granular Insecticides or fertilizers

**BUFFALO TURBINE**  
AGRICULTURAL EQUIPMENT CO.  
INC.  
GOWANDA, NEW YORK

Send For New 1956  
Brochure and Literature

A Few Choice Territories  
Open. Dealer-Distributor  
Inquiries Invited.

## STATE NEWS

(Continued from page 17)

and state vegetable meetings and to participate on the national level through the VGAA.

Anthony Pallato, North Haven, was elected president; Eugene Gagliardone, Bolton, vice-president; Charles Bishop, Guilford, treasurer. Frank Roberts, Middletown, was re-elected secretary, a post he has held for some 20 years.

### Outstanding Growers Honored

**COLORADO**—Presentation of awards to outstanding growers highlighted the annual meeting of the Western Colorado Horticultural Society held recently in Grand Junction.

Outstanding tomato grower is Victor Giles, of Loma. He planted 12.80 acres of his farm to tomatoes and delivered 199 tons to his processor. This would average 15% tons per acre.

Giles follows a strict rotation program with alfalfa, corn, and sugar beets. He also runs a small band of sheep. The tomato land was four-year-old alfalfa ground, spring plowed, with 500 pounds per acre of 0-40-0 fertilizer plowed under.

The hay ground planted to tomatoes had been fertilized every other year with superphosphate, and 300 pounds per acre of superphosphate was applied before the hay was planted. The tomato plants were set with a mechanical transplanter.

### Honored at Annual Meeting

**NEW HAMPSHIRE**—Prof. J. R. Hepler, who retires July 1 after 39 years of service to the University of New Hampshire, was honored at the annual meeting of the New Hampshire Horticultural Society in February.

His work in plant breeding and variety trials resulted in the selection of a number of vegetable varieties adapted to New Hampshire conditions. His Black Beauty eggplant won a silver medal in the All-America Trials.—E. J. Rasmussen, Sec'y, Durham.

### Receives VGAA Award

**MINNESOTA**—Dr. Fred A. Krantz, of the University of Minnesota department of horticulture, was awarded a VGAA Certificate of Merit for his outstanding contribution to the vegetable industry.

The award was presented by Paul Petran, a vegetable grower and former VGAA director, from Albert Lea, Minn., at a luncheon, February 14, during the Annual Farm and Home Week activities of the university.

Dr. Krantz has been on the university staff since 1919 where he has been engaged in potato breeding work and in the study of potato genetics. His research work has resulted in the introduction of several new varieties of potatoes grown extensively throughout the Middle West. In 1938 he was elected president of the Potato Association of America, and in 1953 received an honorary life membership in that association.

### Potato Planting Completed

**CALIFORNIA**—With the bulk of Kern County potato planting accomplished by February 1, it seems evident that potato acreage will be considerably above the goals suggested by USDA Vegetable Guides.

Unless adverse or cold weather conditions occur, shipments may be somewhat



Ohio's 1956 State Fair Queen being crowned at the meeting of the Growers Association parents, Mayfield, Ohio.

earlier than usual. Potatoes are being harvested at Long Wharf, and areas thereon are obtained by extension Service.

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Ohio's 1956 Vegetable Queen Nancy Paddock, being crowned by 1955 Queen Janet Cutting, at the meeting of the Ohio Vegetable and Potato Growers Association. Looking on are Nancy's parents, Mr. and Mrs. Roger Paddock, West Richfield growers.

earlier than during the past few years. Potatoes again will be predominantly the Long White variety. However, in some areas there is a swing toward the production of potatoes for chipping processors.—David N. Wright, Farm Advisor, Bakersfield.

**Recommended Vegetable Varieties**  
**MICHIGAN**—The department of horticulture at Michigan State University has prepared a folder, "Recommended Vegetable Varieties for Michigan." It may be obtained by writing the Co-operative Extension Service, East Lansing. Ask for Extension Folder F-179.

#### Irrigating Sweetpotatoes

**OKLAHOMA**—A test last year at the Blair Experiment Station indicated that some growers apply too much water to sweetpotatoes. They put on too much per application or apply too much in mid-summer. With ample rainfall in May and June, five irrigations (two in July, two in August, and one in September) which held the moisture at a medium level (tensiometer at 45-50) was best. Lower yields resulted when the moisture was maintained at a higher level (tensiometer at 25-30).

Lowest yields resulted when applications were made July 11 and 27, then discontinued. Good yields were secured when irrigations were delayed until the last of July and five applications were made between July 30 and September 8.

#### New Sweetpotato Popular

**KANSAS**—Based on grower interest so far, the new Lakan sweetpotato may become one of our principal varieties. Developed as a seedling in Louisiana and formerly known as La. O-123, it has been outstanding in eye and taste appeal.—Wm. G. Amstein, Ext. Hort., Manhattan.

#### Soil Treatment Advised

**LOUISIANA**—Sweetpotato growers, plagued by increasing numbers of soil insects every year, have been advised to use aldrin insecticide by E. H. Floyd, associate entomologist at the Louisiana State University Experiment Station.

"Plots containing aldrin have consistently produced sweetpotatoes almost free of insect damage," Floyd said. "There has been no effect on the yield or flavor of potatoes grown in aldrin-treated soil." Chlordane and heptachlor treatments also gave good results, but aldrin gave the best.

This treatment, applied to the soil before setting plants, will control soil insects such

(Continued on page 28)

MARCH, 1956



TO USE A  
**QUALITY**  
**FERTILIZER**  
containing ...

**Sul-Po-Mag**®

Water-Soluble Double Sulfate of Potash-Magnesia  
( $K_2SO_4 + 2MgSO_4$ ) 22%  $K_2O$ —18%  $MgO$

**SULFATE OF POTASH**      **SULFATE OF MAGNESIUM**

If your soils are low in magnesium and potash, it will pay you to use a quality mixed fertilizer containing *Sul-Po-Mag*. You'll get increased yields of vegetables with the size, color, flavor and vitamin content that appeal to processors, wholesale grocery buyers and retail consumers.

Fertilizers containing *Sul-Po-Mag* are one of the best investments a vegetable grower can make. That's because *Sul-Po-Mag* is the DOUBLE POWERED plant food material that supplies a balanced combination of quick-acting, water-soluble sulfate of magnesium and sulfate of potash. Sulfate of magnesium for profitable production on magnesium-deficient soils. Sulfate of potash, a premium form of potash containing less than 2.5% chloride and safe for use, in large amounts, on chloride-sensitive vegetables.

Ask your dealer for your favorite mixed fertilizer in a grade containing *Sul-Po-Mag* . . . thousands of vegetable growers have found it pays!



**POTASH** DIVISION  
INTERNATIONAL MINERALS & CHEMICAL CORPORATION

GENERAL OFFICES: 20 NORTH WACKER DRIVE, CHICAGO 6

# COMPLETE TRUCK FARMING DISPERSAL

## TWO DAYS

**Friday March 23—Saturday March 24, 1956**  
**at Brooklands Farm—Route 9**  
**Fishkill, Dutchess County, N. Y.**

The undersigned discontinuing truck farming has Authorized a complete Dispersal of all Farm Machinery, Tractors, Irrigation Equipment, Trucks, Buses and all Equipment necessary in the operation of a large scale Truck Farm. Sale to be held at the Farm known as Brooklands Farm, located on (Route 9, Albany Post Road), Fishkill, Dutchess County, N.Y. Fishkill is located 15 miles south of Poughkeepsie, and 20 miles North of Peekskill, N.Y.

### Selling Friday March 23, 1956

#### 10 A.M.

Papac Forage Harvester, hay and corn head, Int. Side Delivery Rake on Rubber, P.T.O. Int. 2 Row Potato Digger, 2 Row Potato Planter, 2 Transplanting Machines, 1 Pieck Vacuum Blower, Hay Elevator, 2 Int. Fluid Manure Spreaders, 1 Regular Int. Tractor Spreader, Rotary, 6 ft. cut grass or brush Chopper, App. 800—6" Field Tile, 2 Wheel Trailer for Harvesting Sweet Corn, 1-Mc D. Burrmill, 1 Int. Hammer Mill, 700 lb. Feed Mixer, Corn Sheller, 3 ft. Mall Chain Saw, Acetylene Welding outfit, 6 can Int. Milk Cooler, Jamesway water buckets, miscellaneous Dairy Equipment, 1941 International Dump Truck, 120 cold frame sash, a large assortment of small tools and many other items large and small.

#### Rain or Shine

### Selling Saturday March 24, 1956

#### 10 A.M.

3—1955 International Series 400 Tractors, (like new), 2—1950 Model C Tractors and Cultivators, 3—Ford 1½ ton Trucks, 1945—1946—1952 platform with racks, 1—1949 ½-ton Ford Pick Up, 1—1951 ½-ton Ford Pick Up, 1—1947 Dodge Power Wagon, 4 wheel drive with winch attached, 1—Gorman Rupp Irrigation Pump, Chrysler Motor, on Rubber, 1—Marlow Pump with V8 Chrysler Motor on Rubber, 1—Marlow Pump straight 8 Chrysler Motor, 1—Marlow Pump 6 cyl. Chrysler motor, 1—Irreco Pump 8 cyl. Chrysler motor on Rubber, 2—Irreco Pumps, 6 cyl. Chrysler Motor on Rubber, 1—Chevrolet Nurse Truck for Sprayers, 1500 gal. Tank, a very large quantity of 6 inch—5" and 4" Aluminum Irrigation Pipe. Various sized sprinkler heads, ranging in size from 15 gals. per minute to 300 gals. per minute, Aluminum fittings in the form of L's—T's—T Valves, gun pipes, intake pipes, hoses, and dead ends. Complete equipment for irrigation units, 3 small Pumps with air cooled motors, 1 Brillion seeder on Rubber, 1—Killefer Ditcher and Moler Int. Post Hole Digger, 4 Colbey Wagons, Hardie P.T.O. 8 Row Sprayer, 1—Electric Seed Treating Machine, 1 8 foot quick attachable Int. Disc harrow, Int. quick attachable 4 disc plows, 1—4 Bottom 14" Int. Trailer Plow, 3 Pac-Rite bean grading belts capacity 150 bu. per hour per belt, made by American Machinery Corp, 8 sections of spike Harrows, 1—Hester 4 disc Brush Plow 1—Ezee-Flow Lime Spreader, 2—Niagara 6 Row Dusters, 1 never used, a large quantity of ½ bushel and 1 bushel baskets, quantity of 1 bushel bean crates, Spray materials Parathion, Kolofof and Zeralate.

#### Rain or Shine

### Buses

1947 Dodge Bus seating 36—1939 Mack Bus seats 55—1940 Brockway Bus seats 55—International Bus seats 49. Majority of above buses have new Motors and in good running condition.

### Two Way G.E. Radio Equipment Complete

Main station, 3 Mobile Units, Transmitters and Receivers Tower and Car Antennas.

**D. Luther, Auctioneer**  
**Wassaic, Dutchess County**  
**New York**  
**Phone Amenia, N.Y. 47**

**Sale by Order of**  
**Stephen W. Blodgett, Owner**  
**Fishkill,**  
**New York**

## STATE NEWS

(Continued from page 27)

as white grubs, mole crickets, flea-beetle larvae, and wireworms.

Floyd recommended that growers apply two pounds of technical aldrin per acre in fields where damage to sweetpotato roots has occurred or is anticipated from soil insects. This amount can be supplied by using 100 pounds of a two per cent formulation, or 40 pounds of a five per cent formulation.

"It should be applied over the surface of the rows, preferably just before their final preparation," he advises. "Immediately after application, the rows should be disked to cover the chemical about three inches deep.



College student winners in the first annual fruit and vegetable grading contest conducted by the VGAA and sponsored by the Folding Paper Box Association are, left to right, Roland E. Roberts, U. of Connecticut, fifth; Thomas Obourn, Cornell U., third; Harold Bishop, U. of Connecticut, first; Joseph M. Lent, associate professor of horticulture, U. of Connecticut, and chairman of the judging committee; Gordon S. Sheldon, Cornell U., second, and David E. Leonard, U. of Connecticut, fourth. Students competed as individuals and as teams representing seven land-grant colleges.

It is important that it be covered immediately; if the chemical remains in the open sunlight too long, its effectiveness is reduced. Plants may be set any time later.

He cautioned that aldrin is toxic to warm-blooded animals and must be handled carefully.

Experiment Station Circular No. 40, "Recommendations for the Control of Soil Insects which Damage Sweet Potatoes in the Field," may be obtained by writing the Louisiana Agricultural Experiment Station, Baton Rouge, La.

### Promising Varieties

**ILLINOIS**—Some of the newer varieties which appear promising for Illinois and are worthy of trial on a limited basis include:

Asparagus: California 500, Raritan, Waltham Washington; cucumber (slicing): Long Marketer, Santee, Foremost SL-1; cucumber (pickling): Ohio MR 25, Wisconsin SMR 12; onions: Bonanza, Contender, Abundance, Early Harvest; pepper: Burlington (for northern and central Illinois), Liberty Bell, Yolo Wonder; tomato: Urbana, Moreton Hybrid, Kokomo, Boone, Brookston; snap beans: Topmost; sweet corn: Golden Beauty, Seneca Beauty, Sunburst, Barbecue, Super Chief, Tempo, Huron.—N. F. Oebker, Dept. of Hort., Urbana.

### Staff Changes

**NEW YORK**—Dr. Edwin Oyer has joined Cornell department of vegetable crops. He filled the vacancy created by Dr. W. C. Jacob, who joined the staff of the University of Illinois. Dr. Oyer will be doing research work on Vegetable Physiology and will also be working with New York State Vegetable Growers as part-

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time extension specialist. Oyer came to Cornell from Purdue University.

Dr. Thomas L. York has left Ithaca for a two-year leave of absence in the Philippines to work with the Cornell Project at the college of agriculture there. In order that York's plant breeding program on carrots, beans, tomatoes, etc., continue without interruption, Dr. Henry Munger, head of the department, will assume the leadership. Donald Wallace, who has been graduate assistant in bean breeding, will devote full time to the vegetable breeding projects. Consequently, Munger will relinquish part of his administrative duties to Dr. Robert D. Sweet, who will act as head for the coming year.—Raymond Sheldrake, Jr., Ext. Hort., Ithaca.

#### Sweetpotato Varieties

**NORTH CAROLINA**—Most sweetpotato growers in this state are loyal to the Porto Rico variety. But at least one grower, Vassar Shearon, of Wake Forest, is shifting his loyalties to the new Copper Skin Goldrush variety.

Shearon planted a few acres of the new variety alongside his Porto Rico's last year. The Goldrush yielded 231 bushels of No. 1's and 32 bushels of jumbos per acre. The old Porto Ricos in the same field produced only 130 bushels of No. 1 grade and 125 bushels of jumbos per acre.

The greater yield of No. 1's by Copper Skin Goldrush was due largely to its fusarium wilt resistance. Early in the season Shearon could easily spot missing hills in



More than 100 vegetable growers attended a meeting at Southern Illinois University, Carbondale, to hear specialists discuss vegetable production problems. Informally talking over some of them are (left to right) Leonard Wilkie, Belknap; Norman Oesker, University of Illinois extension specialist in vegetables; William T. Andrew, SIU vegetable specialist; Albert Diehl, Columbia; L. S. Mygatt, West Frankfort, and A. J. Flamm, Cobden.

the Porto Rico planting, but none in the Goldrush. Anytime a farmer gets a poor stand of plants, he can expect a high percentage of oversized or jumbo grades.

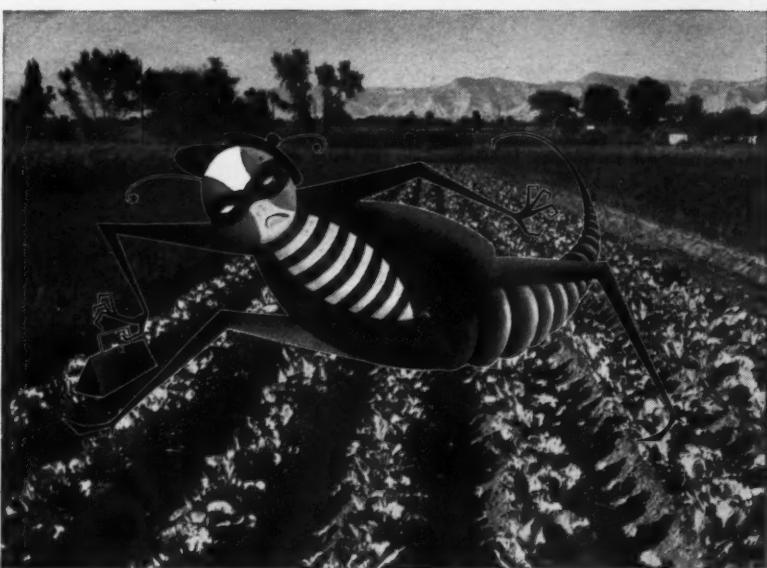
Besides being high-yielding, Goldrush has a very deep, even, orange color.—H. M. Covington, Ext. Hort., Raleigh.

#### VINE SEEDS

INTEREST in vine seeds is high among growers all over the country, following the introduction of many new varieties in the last few years.

An excellent source of vine seeds is Lawrence Robinson & Sons, Modesto, Calif., specialists in cantaloupe, watermelon, cucumber, pumpkin, and squash seeds. Their illustrated catalogs include complete descriptive information, and feature many of the new varieties.

MARCH, 1956



## How Niagara Helps You Win The Game of Crops and Robbers

Give your row crop acres the best of protection with these exclusive NIAGARA formulations. Enjoy better yields. Always available fresh and in full toxic strength. See your local NIAGARA field man.

#### C-O-C-S FUNGICIDE

This natural copper fungicide is the old favorite dust or spray material for thousands of growers. Effectively controls blight, mildew, leaf spot.

#### NABAM SOLUTION

An organic liquid, compatible with most insecticidal sprays. Controls many diseases, particularly early and late blight on potatoes, tomatoes, celery.

#### CHLORO IPC WEED KILLER

A pre-emergence weed control material for snap and lima beans, lettuce, peas, onions, spinach and others. Post-emergence on onions, also.

#### PYRENONE DUST

A relatively non-toxic insecticide for application to vegetable crops where the use of materials such as DDT is not permitted.

#### CHLORDANE DUST OR SPRAY

One of the most effective insecticides known. Controls cutworms, wire worms, grasshoppers, maggots, ear wigs, beetles, leaf miners and others.

#### SOILFUME

Apply 2 to 3 weeks before planting to rid the soil of pests such as nematodes and wire worms that attack vegetable root structures and restrict yields.

# Niagara DUSTS and SPRAYS

Niagara Chemical Division  
FOOD MACHINERY AND CHEMICAL CORPORATION

Middleport, N.Y., Richmond, Calif., Jacksonville, Fla., Tampa, Fla., Pompano, Fla., Wyoming, Ill., New Orleans, La., Ayer, Mass., Harlingen, Tex., Pecos, Tex., Yakima, Wash., Pine Bluff, Ark. Canadian Associate: NIAGARA BRAND SPRAY CO., LTD., Burlington, Ontario





Normal rainfall is **NOT** enough...



For top yields, make **SURE** with  
**GORMAN-RUPP IRRIGATION PUMPS**

In 1955 most areas, country-wide, saw normal rainfall. But normal rainfall was *not* enough.

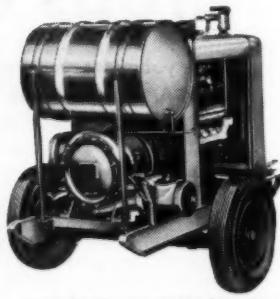
For instance, in a lower lakes region, there was a crucial 18-day summer period when *no* rain fell—five other periods, 11 to 19 days each, when there was *no effective* rainfall. Crops were noticeably retarded.

Sprinkler irrigation in *any* year will assure soil moisture content for finest yields. And Gorman-Rupp Irrigation Pumps—backed by the combined experience of more satisfied users than any other make—offer the sure means of making your system the best for your individual needs.

A Gorman-Rupp Irrigation Pump Dealer near you is prepared to provide a scientifically engineered plan for your farm, also irrigation financing counsel and assistance. See him now.



**THE GORMAN-RUPP COMPANY**  
305 Bowman Street • Mansfield, Ohio



Completely engineered units with lever-controlled automatic check valves, removable end plate, shaft seal under suction, large drum-type fuel tank—all with operational safety features. P.T.O. Driven: 3" and 4". Engine Driven: 80 GPM @ 80 lbs. to 1250 GPM @ 125 lbs.; for ditch irrigation, 3000 GPM @ 25 ft.

**SENSATIONAL!! New Low Cost**  
**Plastic Greenhouse Heating**

WITH **KUR-MOR**

(USING L-P  
OR BOTTLED GAS)

50,000 BTU Input  
Rugged Construction  
No Vent Required

100% Safety Pilot  
Directional Heat  
Flow  
Manual or Automatic Control

Is Being Used With  
Outstanding Results

WRITE  
**BLUE GRASS BUTANE CO., Inc.**  
2417 Nicholasville Pike



**Are You a Seed Salesman?**  
Add to your income by selling **AMERICAN VEGETABLE GROWER**. Write today for our liberal nursery agents' plan. Address:  
**EDWARD MEISTER**, Circulation Manager  
**AMERICAN VEGETABLE GROWER**  
WILLOUGHBY, OHIO

**VEGETABLE PLANTS**

Cabbage, Onions, Tomatoes, Pepper, Collards, Broccoli, Brussels Sprouts, Cauliflower, Eggplants, and Sweet Potatoes.

Best strains of leading varieties. Shipments catering to market gardeners' demands. Free price list.

**TEXAS PLANT FARMS**  
JACKSONVILLE, TEXAS



Allgold is one of Oklahoma A & M's high-vitamin sweetpotato varieties producing high yields with a high percentage of No. 1 grade.

## HIGH-VITAMIN SWEETS

Three Oklahoma varieties win favor of growers and consumers

THE high-vitamin sweetpotatoes developed at Oklahoma A & M College are more than living up to their expectations.

Introduced in 1950, the Allgold, Redgold, and Nemagold varieties won quick popularity. More than 52 per cent of Oklahoma's sweetpotato acreage last year was of these high-vitamin varieties, according to Eddie Whitehead, extension horticulturist of Oklahoma A & M College. Plant growers also report large sales of seed stocks to Texas, Arkansas, Mississippi, the Carolinas, Kansas, and Maryland.

Growers like them because they are early-maturing, high-yielding, disease-resistant, and normally produce a high percentage of No. 1 potatoes. Housewives like them because they are fiber-free, delicious in flavor, have an appealing color, and are especially high in vitamins A and C. Allgold has three times the vitamin A content of the Porto Rico variety.

Over five years were devoted to breeding trials by Oklahoma A & M sweetpotato expert, Dr. H. B. Corderner, before they were released.

### Respond to Irrigation

The Allgold, Redgold, and Nemagold varieties have responded well to irrigation in Oklahoma. Eight farmers of Woodward County planted 38 acres to the varieties that produced over 2,000 bushels of No. 1 potatoes in 1955. Yields on the irrigated sandy soils in this county ran from 400 to over 1,000 bushels per acre. One grower had one acre that produced

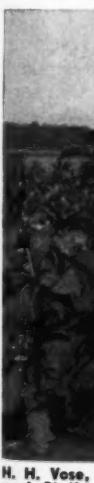
AMERICAN VEGETABLE GROWER

1,015 bushels grading 1.

The production has resulted by growers, pen accidents, demonstrating the state, consumers the high way their way Oklahoma.

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1,015 bushels, 80 per cent of them grading No. 1. The crop was fertilized.

The popularity of the varieties that has resulted in their high acceptance by growers and consumers didn't happen accidentally. Hundreds of local demonstrations were established over the state, and as soon as growers and consumers learned of their merits, the high-vitamin varieties were on their way to the top.—Lee Stevens, Oklahoma Extension Service.

### CULTIVATED POKE

COMMON wild pokeweed (*Phytolacca americana*)—poke sallet of the South—is going commercial. In 1953 there were 10 acres under cultivation at Van Buren, Ark. The extreme dry weather in the area during the past two seasons reduced yields and new plantings, but the future looks promising.

Poke is used as a salad or greens plant. The young, tender shoots are cut when about 18 inches high and canned as greens. Seed is soaked in



H. H. Vose, superintendent of Arkansas Experiment Station at Van Buren, points out tender shoots of poke suitable for greens processing.

commercial sulfuric acid for  $7\frac{1}{2}$  minutes to break the seed coat before planting. About 15 pounds of seed are required to plant an acre in rows 24 inches apart.

Roots of the pokeweed have long been known to be poisonous, but the tender young shoots are quite good and contain no poisons. On commercial plantings yields are fairly heavy since two cuttings can be made during the early growing season. Poke is a perennial plant and can be harvested for a number of years.

Are you planning a roadside market? Working drawings for an attractive, easy-to-build stand are available for \$1.50 from AMERICAN VEGETABLE GROWER, Willoughby, Ohio.

MARCH, 1956



Crop surrounded by quack grass  
...where no MH is used

# KILL QUACK GRASS

with

# MH



MH was sprayed on quack grass  
prior to planting this crop

Quack grass is licked! Now MH not only reduces quack grass growth, but also eliminates this nuisance, in areas devoted to high-value crops. MH is so safe that seeds of vegetable and field crops can be planted on treated areas as soon as plowing and preparing the soil are completed. No soil toxicity.

Order MH from your local supplier today. Write, wire or phone us if unable to locate immediate source of supply.

SEE—Naugatuck Chemical Division, United States Rubber Company, at work on NBC's "Color Spread" TV spectacular, Sunday, March 25, 7:30 PM, EST.



## United States Rubber

### Naugatuck Chemical Division Naugatuck, Connecticut

producers of seed protectants, fungicides, miticides, insecticides, growth retardants, herbicides: Spergon, Phygon, Aramite, Synklor, MH, Alnap, Duraset.

# RA-PID-GRO

RA-PID-GRO will be receiving credit for years for the wonderful Plant Food it is. There is no other Plant Food made like RA-PID-GRO. It is a secret formula.



RA-PID-GRO is 23 years old—no complaints—two million customers—better fruit—more of them which will mature—trees healthier.

## FOLIAGE FEEDING

Triumph of RA-PID-GRO

Be sure to soak all farm seeds in RA-PID-GRO before planting.

Plant Research

Ask your dealer for chart of information.

You boys have a big investment—you can't afford to experiment. RA-PID-GRO, 23 years ago, was sprayed on the foliage of fruit trees in the nursery.

RA-PID-GRO is a secret formula made only by RA-PID-GRO Corporation.

Experts now have proven that 95% of Plant Food sprayed on the bark (dormant spray) enters the sap stream.

No one tries to copy a failure.

"Imitation is the Sincerest Flattery."

Your trees are too valuable. To be safe, be sure you use RA-PID-GRO, the original.

RA-PID-GRO is compatible with most all fungicides and insecticides. Be sure to use it with your dormant spray this Spring.

See our jobber or representative for the many experiments now completed or write us for information.

# RA-PID-GRO

C O R P O R A T I O N  
Dept. AVG  
Dansville, N. Y.



### WE'VE FOUND A BETTER WAY...

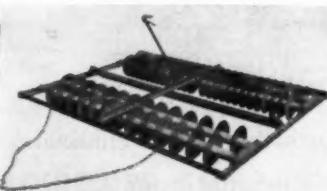
Rear's Farm Service specializes in machinery for every Trellis Job! One-, two-, or three-row stake presses for any size stake...priced \$120.00 and up. STRINGERS — WIRE SPOOLERS — WIRE WINDERS — VINE STRIPPERS — STAKE PULLERS — WIRE SPLICERS — Designed to do the job quicker, easier, better!

To insure best results we supply paper or cotton string expressly designed for use on our machines.

WRITE

**REAR'S FARM SERVICE**  
755 RIVER AVE. EUGENE, OREGON

### SIMONS Pulverizing and Smoothing HARROW



For a really fine, smooth Seed Bed Here's the Harrow that can increase crop yield so much that it can pay for itself in one season.

It's a harrow, roller and leveler combined that will give you a really fine, smooth seed bed. And the Simons Harrow is built for high speed and hard use.

It's adjustable to exactly suit your soil. Available in 4-5-6-7-8-9-10-11-12 ft. widths.

We have open Areas for Dealers

Write for Prices and Details

**S. S. SIMONS**  
Machine Works

6223 STATE RD.  
CORNWELLS HEIGHTS, PA.



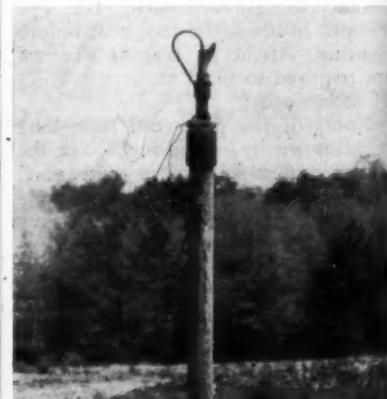
Air view of pond on hill built by University of Georgia in Piedmont area. Irrigation water is fed through underground pipe to surrounding area.

## LOW-COST IRRIGATING

Low-pressure stationary system works well on sloping terrain

SOME years ago the University of Georgia's department of horticulture piped the flow of a small spring down a hillside into a man-made reservoir on top of a small knoll in the center of approximately 6 acres of fertile alluvial soil of the Oconee River Valley. From the reservoir second-hand boiler pipes were laid underground to a cultivated area surrounding the knoll, and overhead pipe lines were laid out to follow the contour of the land. Later the overhead pipes were placed underground with only the risers and rotating sprinklers remaining above-ground.

Since the head of water ranged from only 10 to 20 feet above the irrigation pipes, with a pressure of from 7 to 15 pounds per square inch, the conventional oscillators and perforated pipes proved unsatisfactory. Low pressure rotating sprinkler nozzles, simple in design and able to operate satisfactorily on a pressure of as low as 7 pounds per square inch,



Riser and low pressure sprinkler used in University of Georgia system. Fixed sprinklers reduce maintenance cost, simplify operation.

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We have been able to maintain excellent vegetable production on this area during the hot summer and fall months when vegetables bring a premium in the hill country of Georgia.  
—Francis E. Johnstone, Jr., Dept. of Hort., U. of Ga.

were located. (Made by Ittner Brothers Company, Box 2514, Minneapolis, Minn.) The nozzles were spaced on pipe lines (later on risers from underground pipes) and the system was ready to operate.

The cost of the whole system was amazingly low, and the cost of operation, which consists simply of turning the valves on and off and occasionally clearing a sprinkler, is negligible.

### Greater Net Returns

In visiting numerous farms in the Piedmont areas of the Southeast I have looked for situations in which a similar system could be installed. My conclusion is that 50 per cent or more of the average-sized farms of the Piedmont could do as well or better than we did. Few seem to have tried it, however. This is surprising in view of the fact that the 6 acres we have under this type of irrigation realize greater net returns than three times the acreage of similar crops on the same farm with the much higher priced movable gasoline powered pumps and portable pipes. The difference is in the low cost of maintenance and ease of operation. Farm labor will turn on the valve which starts the fixed sprinklers whereas they will delay moving pipe.

Two things in particular have made our system practical. The first is the low pressure sprinklers, and the second is the use of a soil amendment to puddle the bottom of the pond on the knoll so that it would hold water. The latter would not be necessary on most farms as a suitable water-holding clay is not hard to find in the Piedmont.

We have been able to maintain excellent vegetable production on this area during the hot summer and fall months when vegetables bring a premium in the hill country of Georgia.  
—Francis E. Johnstone, Jr., Dept. of Hort., U. of Ga.

## EARLYSWEET

### A Georgia Introduction

EARLYSWEET is a new sweetpotato variety developed by Georgia Coastal Plain Experiment Station and released to growers for the 1956 season. Since it has not been tested outside Georgia, its adaptability outside that state is not known. It is an extra early producer of high yields in 100 to 120 days. In South Georgia two crops of Earlysweet per year can be grown.

Characteristics of the new variety include: light colored, cream skin; deep orange flesh of fiber-free uniform texture, high in sugar, and of excellent quality; good plant production, comparing favorably with Unit 1 Porto Rico; high susceptibility to cracking; rapid deterioration if left in soil too long; tolerance to stem-rot.

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sprinklers  
operation.  
GROWER

MARCH, 1956

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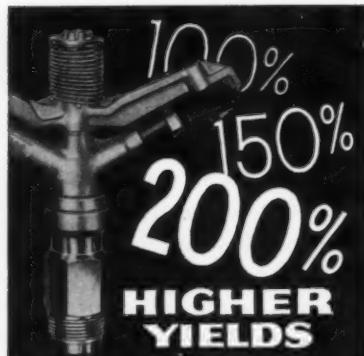
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## WATERMELON WIZARDS of the North

**Ben and Alfred Hogan proved that you can grow 50-pound watermelons and guarantee their goodness—even in the relatively cool climate of New Hampshire**

By CHARLES L. STRATTON

THE watermelon trend in New Hampshire, and in other sections of the country where the growing seasons are not long enough to grow large ripe melons, is to raise some of the new smaller varieties of melons made famous in the last few years. But the Hogan Brothers, Ben and Alfred, of Nashua, N.H., are raising large melons of excellent quality for their retail farm trade. Their favorite varieties are the Black Diamond and the Garrison. The largest so far has been a 59-pound Garrison.

Ben claims that in order to raise watermelons successfully you have to know all about them. He obtains and



Ben Hogan holds a pair of Black Diamond watermelons grown on his New Hampshire farm. Plants were started in hotbeds in April, transplanted to the field in late June. Melons shown weigh 35 and 40 pounds.



Ben gets watermelon plants off to an early start in these hotbeds. Paraffin paper has been tucked over cut-out section in foreground for more light.

reads just about every bulletin possible on the growing of watermelons.

### Start Plants in Hotbed

The Hogans' system for obtaining large watermelons is giving them a longer growing season. They start the seeds in either wooden flats or in quart oil cans next to the kitchen stove or in hotbeds during the first two weeks of April. Whether they are started outside or inside generally depends on weather conditions. Many growers say you cannot transplant watermelon plants, but Ben says, "It just isn't so," and his large melons prove it.

Their hotbeds are prepared by cleaning out the old soil and placing about a foot of fresh horse manure in the bottom. Flats are either placed directly on the manure or on boards over the manure, depending on the heating qualities. They believe in

using good greenhouse soil in the 12x18-inch wooden flats, and they start as many as 250 seeds in each, thinning considerably later on. A constant watch is kept over the small plants in the hotbed, supplying them with trace elements and common fertilizers like 5-10-10 and 5-8-7 as needed. They generally mix their own fertilizers to meet plant requirements, and apply them in water solutions away from the stem to avoid burning.

Damping-off is one of the biggest problems connected with starting watermelons in the hotbed. The Hogans say most growers overwater watermelons. They take it easy and keep the plants slightly on the dry side to avoid the damping-off problem. If it is damp and cloudy, they watch watering closely. The plants have gone as long as two weeks with only a few drops of water to keep

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them from drying out and withering. The Hogans feel it is easier to control this problem in the hotbed than in the field. They give the plants plenty of air and sunlight, and have even cut out the sides of the hotbeds and covered them with paraffin cloth for added light. When the plants are first coming up, they allow a little more air to keep them from getting too hot. Later they balance between light and temperature by opening up the frames as needed, keeping the hotbeds as hot as possible, and still keeping the plants healthy.

#### Transplant in June

Watermelon plants go into the fields toward the middle or end of June as weather conditions permit. If the weather is bad, the Hogans are not afraid to hold them as long as necessary, and have even set out plants with runners a foot long. Generally the plants have four or five leaves when set out. No plant protectors or other frost protection measures are used in the field.

Ben suggests a dry soil with good drainage, and advises having new soil tested and applying fertilizer accordingly. They never apply less than a ton of fertilizer to the acre and claim they get a better-flavored melon with an acid soil. They do not recommend trying to raise melons where the lime content is high.

Only the best and the sturdiest plants are selected for planting outside. Plants are spaced 12x12 feet apart for the most yield per acre.

Pruning is easier when plants are well-spaced. Smaller melons are knocked off so the larger melons will ripen quicker. "The more melons on a vine," Ben says, "the slower they'll mature."

#### Harvest in August

The Hogans start harvesting melons for retail sales around the middle of August, when they weigh 15 to 20 pounds, and continue until frost in late September. Only melons that reach maturity are sold. They feel once a customer gets a taste of a really good local melon he'll keep buying. They use a number of tests to check maturity of the melons in the field. The Black Diamond, they claim, has a dusty bluish-black filmy appearance and they can generally tell ripeness by snapping with the fingers. Their accuracy is 98 per cent correct. A triangular plug is cut as the final test at time of sale and the customer is allowed to sample.

Ben and Alfred Hogan raise over 20 acres of vegetables and advertise, "We grow everything we sell." They feel that they cannot control quality if they buy outside. **THE END.**

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**THE HARDIE**

**2-FAN**

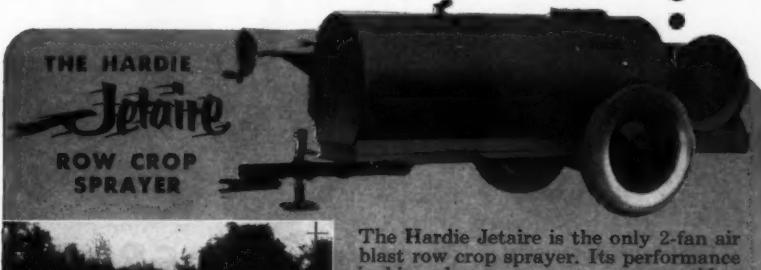
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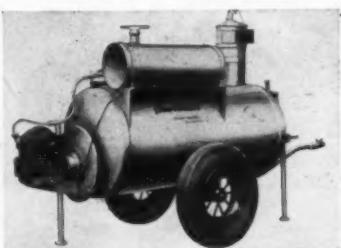
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## MUCK FARM IRRIGATION

Efficiency is key to success  
on Gehring Farm in Indiana

PUTTING an inch and a half of water on 1,290 acres five or six times during the growing season is a major undertaking. But that's what took place on the William Gehring farms, Rensselaer, Ind., during the summer of 1953.

Irrigation not only kept the 1,150 acres of potatoes and 140 acres of onions growing at their best, but also kept the muck from blowing during the dry, windy spring. Development of the land and the drainage-irrigation system has taken place over a period of years, and is still undergoing change.

### Dual Purpose Ditches

The muckland is necessarily bisected by many large drainage ditches which serve a dual purpose. During rainy periods they carry water from the fields. During dry periods the water control structures are closed and the ditches serve as large reservoirs, conveniently located for irrigation. In periods of extremely dry weather, when irrigation is heaviest, water is pumped from deep wells into the ditches. The wells were really lifesavers in 1953 because irrigation was continuous all season. When no rains occur potatoes are watered at the rate of 1½ inches per week.

The Gehring fields are mapped so as to promote efficiency in laying out irrigation systems and moving them from one setting to another. An important item is to have your irrigation system so designed that pumps operate at full capacity at all times even when finishing up a field. Direction of prevailing winds and location of water supply are other determining factors in laying out the system. Unplanted roadways serve for laying out permanent main lines, thus no damage results to growing crops.

### Right-Sized Equipment

Pumps, pipe lines, and sprinklers of proper sizes and capacities are essential to efficient irrigation. Eight pumps delivering 1,000 gallons per hour at a pressure of 140 pounds per square inch deliver the water to Gehring farms. Gorman-Rupp pumps are powered by Continental-602 gasoline engines developing a maximum of 150 hp or 113 hp under continuous operation.

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Up to 3,000 feet of 8-inch Flex-O-Seal main lines are used with each pump setting, depending upon the layout of the field. Six-inch Flex-O-Seal laterals are spaced 180 feet apart. Each pump supplies 660 feet while another 660 feet are moved to a new location on the main line. Four 250 gpm Skinner sprinklers spaced 160 to 180 feet apart on laterals are employed per setting. Each pump setting waters from 67 to 70 acres, then is moved to a new location.

#### Minimum Labor

Low labor requirement is an important item in irrigation efficiency. On the Gehring farm each pump system is tended by 3 or 4 men, and it takes only 36 man-hours to completely move a pump system and set it up in another location. Thorough study of the irrigation plan and utilization of laborsaving techniques and devices make this possible.

Each application puts on 1½ inches of water, and last year most of the acreage received 5 or 6 applications. Cost of applying each acre-inch of water totaled \$4.34, including overhead and operational costs.

—Eldon S. Banta.

#### VEGETABLE GROWERS!

We are looking for factual accounts of grower experiences in irrigating vegetables and small fruits for our coming June Irrigation Issue. Send letters and, if available, photos. Regular author payment. Address contributions to Richard T. Meister, editor, AMERICAN VEGETABLE GROWER, Willoughby, Ohio.

#### PRUNE TOMATOES?

PRUNING and training tomatoes is a subject that can set off a hot argument among growers. While home gardeners generally prune and stake their plants, there is no general agreement on the value of methods used in commercial production on open fields, says Charles M. Drage, extension horticulturist at Colorado A & M College.

The "pruners and trainers" claim these advantages: earlier ripening, bigger yields, larger fruits, less disease and insect injury, easier spraying, closer planting, and more convenient harvesting.

However, there are several disadvantages, says Drage. Among them: more labor and expense, less total yield, more blossom-end rot, and more sunburned and cracked fruit.

The most common pruning method is to remove buds that would develop into lateral branches if allowed to remain. These buds appear at the point where the leaf stem joins the main stem, and are sometimes referred to as suckers.

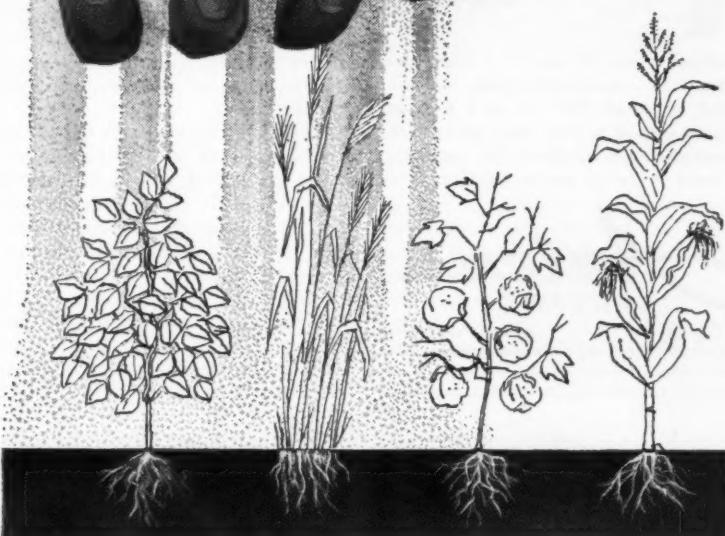
MARCH, 1956

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## CAN YOU AFFORD NOT TO STERILIZE?

(Continued from page 13)

in other words, two lines for a 4-foot bench are sufficient. Steam is admitted to the lines simultaneously by means of a split or U-shaped header at one end.

Some may prefer to use the older and more laborious method where tile or tubing is buried in the soil, perhaps only an inch or so from the bench bottom. In ground beds, the permanent drainage tiles can sometimes be used to introduce steam which will rise to escape and thus heat the soil.

Steam only as large a section of a bench as can be brought to the recommended temperature in several hours. This will depend on your boiler capacity and steam pressure. In a raised bench, about 9 square feet of area can be steamed per boiler horsepower.

**Sterilizing Covers**—A tight cover is placed over the bench so that steam is forced down through the soil. Allow it to extend out over the bench sides so they too are thoroughly sterilized. The cover may be of heavy canvas, Sisalkraft paper, rubber- or Neoprene-impregnated cotton fabric, or vinyl or polyethylene plastic of varying grades.

In our experience, canvas works fine but is heavy, unwieldy, and expensive. Sisalkraft, while relatively cheap, doesn't last long. The thinner plastic materials are easier to handle but also to tear. Some of them have the advantage, however, of clinging to the bench sides when wet. Thus, they trap the steam without being held in place with weights or clamps.

We have found the rubber- or Neoprene-coated fabrics most satisfactory although intermediate with regard to weight and ease of handling and storing. One Neoprene-coated sterilizing cloth now in use

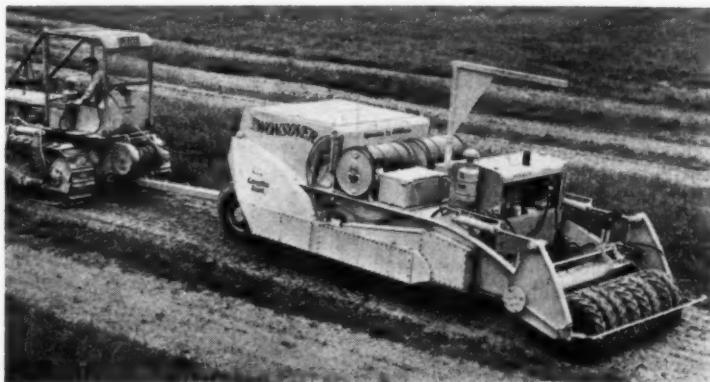
in our greenhouses has withstood over 250 runs. A plastic-impregnated Fiberglas cloth was found to be relatively shortlived because of cracking and loosening of seams.

With most sterilizing covers, other than the thin plastics mentioned above, some means must be found to hold them down. Although we want the fabric to balloon, the only escape for steam should be through the soil.

**Use a Thermometer**—Remember, unless you do a thorough job of sterilizing, your time and effort are wasted. Aim at a temperature of 180° F. for 30 to 45 minutes. While glass mercury- or alcohol-filled thermometers are all right, they are easily broken. Better invest in a metal dairy-type thermometer which has a convenient dial for easy reading. Turn off the steam periodically, lift the cloth, and measure the temperature at a number of places up and down the bench, including the far end which is usually the coolest. When every point, including the lowest layers of soil, have reached 180° F., keep the steam off but leave the cover on for another 30 minutes. The soil temperature will remain high enough during that period to kill all soil-borne pests.

**Handy Sterilizing Box**—What about sterilizing small batches of potting soil, sand, or peat that you might have need for? What is the best way to sterilize pots, flats, containers, tools, and plant supports? Many find it worthwhile to construct a sterilizing box in the head house.

The Illinois sterilizing box is so designed that condensation moisture is largely carried away in the drainage channels. Nevertheless, with any type of box you construct, be certain to introduce steam slowly at



### PLANTING IS SIMPLE WITH THIS GIANT

The WONSOVER, a 10-ton giant made by Norton Portland Corp., Portland, Maine, prepares the soil, applies fertilizer and fumigant (including liquid or gaseous forms),

plants the seed, and packs the soil—all in one operation. In 2½ days one man can plant 70 acres. Any type of seeding device can be adapted to the WONSOVER.

AMERICAN VEGETABLE GROWER

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MARCH, 1956

first. Then, after the soil has warmed up a bit, turn on more steam. In this way there will be less condensation and the soil won't end up a soggy mass. With a careful job of steaming, soil will not be too wet to use immediately after sterilizing, and can be shoveled onto potting tables and used when cool. Should you have high-pressure steam introduced from the bottom, don't turn it on full force. It will merely blow a hole up through the soil instead of penetrating uniformly upward.

**Some Precautions**—We are often asked how soon soil can be used after steam sterilization. In general, as soon as cool provided the soluble salt content was not high in the soil to begin with. Should you consistently encounter difficulty in newly sterilized soil, let it "age" for several weeks before using. Or better still, leach thoroughly to remove some of the salts. At any rate, be sure to use plenty of water immediately after planting up the bench.

Good growers make a practice of steaming bench soils at least once a year, and preferably before each new crop. Sterilization, and periodic incorporation of organic matter, make it possible to use the same soil for many years without replacement.

For those with concrete benches, we caution against heating up the bench too quickly. Rapid and un-

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PENNSYLVANIA GROWERS ON TOUR

Caught by the camera in the staked tomato field of Secretary Jim Garrahan, Kingston, are these members of the Pennsylvania Vegetable Growers Association and their wives. The occasion was the group's second annual vegetable tour. At the Berwick Vegetable Co-operative, the member-growers saw green tomatoes being washed, waxed, and graded. The next stop was the Zehner Brothers warehouse at Nescopeck, where a Stericooler was in operation. The

Charles M. Bloss farm in the Conynam Valley was visited next. About  $\frac{1}{4}$  of this valley has been contour by the Luzerne County Agricultural Extension Association. The Carl Kauffman farm was next stop, after which the group headed for Sybertsville Green Tomato packing sheds, where lunch was served. Final stop was the new Luzerne County Farmers Night Market in Kingston, recently purchased by 53 growers, and improved at a cost of \$30,000.

even expansion may cause cracking. If steam is admitted slowly at first, the bench will warm up gradually and uniformly.

Don't be guilty of going to all the bother of sterilizing a bench of soil, then planting it with plants knocked out of contaminated pots. Don't be guilty of planting with unsterilized tools. Don't be guilty of carrying plants to the bench in dirty flats.

And for direct-seeded crops, take the precaution to treat the seed-coats with Arasan.

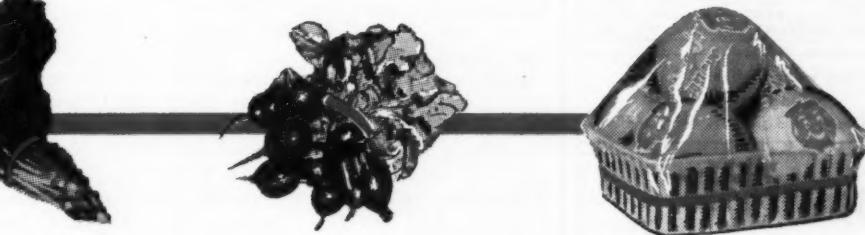
One of the biggest jobs of the greenhouse foreman is to educate employees about the importance of sanitation. Carelessness such as walking on sterilized benches or laying old boards and equipment on the soil can ruin your sanitation program in a hurry.

THE END.



**INCREASE  
YOUR VEGETABLE  
SALES**

BAND 'EM WITH  
**Open Ring**  
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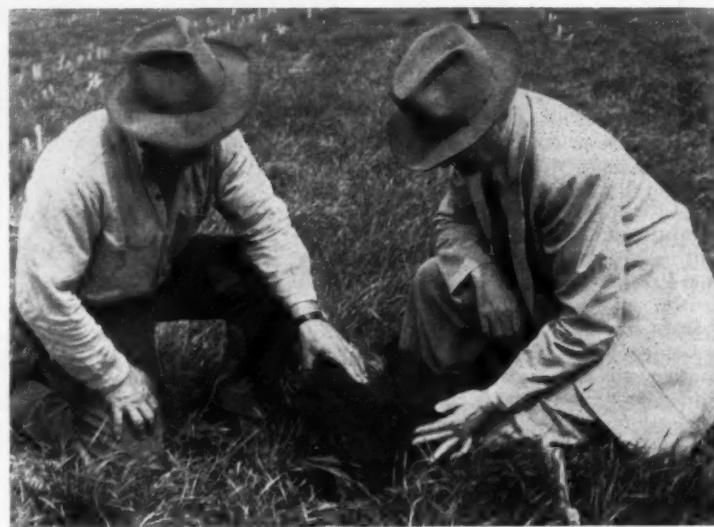
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## RYE GRASS AS A COVER CROP



THE need for large amounts of soil organic matter is well known to vegetable and potato growers. Many times cover crops can be seeded at last cultivation of a crop. In the photograph, Leonard Settlinger (left), vegetable grower from Swanton, Ohio, and E. O. Williams, Lucas County

Agent, are examining rye grass roots. The rye grass was seeded at last cultivation of sweet corn. Picture was taken April 20, 1955. Settlinger is vice-president of Ohio Vegetable and Potato Growers Association. —E. C. Wittmeyer.

## TOMATOES AND SQUASH

(Continued from page 15)

ing more than half of their acreage to the new varieties, and they're taking hold in the central states, too.

But Bill Tapley is still looking for something better.

"All varieties of tomatoes," he explains, "have one or more weak points. Soil, climate, and seasonal conditions may accentuate or minimize the weaknesses. Even in New York state growers in certain areas may not find all three of the new tomatoes satisfactory."

What are their specific qualities? First of all, there's that relatively rare quality of uniform color from stem end to blossom end, whether the tomato is green or red. Secondly, they're all heavy yielders—at least in the Northeast. Beyond that, Tapley describes them as follows:

Gem has an early season. The fruits average about 6 ounces in weight and are oblate-shaped. The skin is smooth, with a very small scar. The plant is small and compact, producing highest per-acre yields when given only 10 or 12 square feet per plant. The Gem is favored by many home gardeners.

Longred is fairly early in season. The globe-shaped fruits average 7 ounces and are reported to be the deepest tomatoes available. The plant is spreading and medium in size. For home garden use, the plant should be staked.

Red Jacket is also fairly early in season. Fruits average about seven ounces but are somewhat flatter than Longred. Foliage is of the potato leaf type. This provides heavy cover which discourages sunscald and helps develop the desirable red color.

Tapley hadn't completed work on his first three tomatoes when World War II caused him to enlarge his program. At that time the United States was importing large quantities of tomato paste from Italy. The war cut off the supply, so New York growers attempted to grow the plum- or pear-shaped varieties. They soon gave up when none would mature in the comparatively short growing season.

Again the problem was tossed to Bill Tapley. Along with his other projects, Tapley began crossing the King Humbert with conventional types. The war ended and the original source of supply was restored—but Tapley was too deeply engrossed in the project to put it aside. In 1952 his latest achievement was announced by the experiment station. It was called Red Top.

It's so new that its possibilities haven't begun to be explored. Tapley selected it for its low moisture content, heavy yields, and deep red color. With less moisture to begin with, there's that much less to be

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boiled off if the tomato is used for paste or catsup. Red Top's deep color has led some juice processors to blend it with other varieties to improve color. Other processors are canning Red Top whole as a pomodora type. Trial plantings are now being grown as far west as California, and in Mexico, Hungary, Israel, Ceylon, and Australia.

In the Tapley household, Mrs. Tapley puts up a large quantity of Red Top each year as canned and as frozen whole tomatoes! Because they're not very juicy, frozen Red Tops don't collapse as readily as other varieties upon thawing. Mrs. Tapley uses them as cut sections in tossed salads during the winter.

#### Baby Dictators

In recent years Prof. Tapley has extended his interest to squash—specifically, one that will better serve the needs of processors. The processors are taking their orders from the world's most exacting dictators—babies. Each year about 4½ million cases of squash are canned in the United States. This includes baby food and the same type of squash which is used to give body to canned pumpkin for pies.

Tapley is now putting the finishing touches on a new squash which has thick flesh and a skin which is smooth and of the same color as the flesh. The smooth skin simplifies the washing operation. Since the skin is not peeled, a smooth, uniform colored product is possible only if the skin and flesh are the same color.

If all goes well during the current growing season, the new squash—now known only by number—will be named and distributed to seeds-men this year.

THE END.

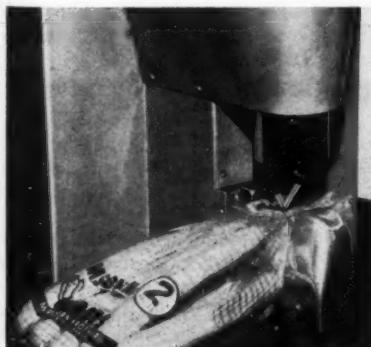
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MARCH, 1956

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A farmer has to be a keen wide-awake business man and as such makes it his business to at least learn what is going on. Let us tell you about these great machines. Let us know what approximate acreage you intend growing (1956) of above mentioned crops.

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- **HOW TO MAKE A LIVING IN THE COUNTRY.** By Fred Tyler. 96 pages—\$1.00

The eight pages on roadside marketing are worth the price of the book.

- **VEGETABLE GROWING.** By James E. Knott. 358 pages—\$5.00

General principles of equipment, seed supply, soil preparation and fertilization, irrigation, insect and disease control, storage, and marketing are covered in the new Fifth edition. The last half of the book is devoted to detailed discussions on the proper production of 71 different cool and warm season crops.

- **SWEET CORN.** By Walter A. Huelsen. 409 pages—\$10.50

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**NEW CABBAGE FROM WISCONSIN**  
Badger Ballhead, a fresh-market variety released by University of Wisconsin and USDA, has high resistance to cabbage yellows and relatively high resistance to mosaic. Heads are bluer in color and smaller in size than Improved Wisconsin Ballhead, and should permit closer planting. Seed available from leading seed houses.

### GROW YOUR OWN

(Continued from page 11)

the walk and near the heaters were much larger than those along the outer edge of the house. All plants were transplanted to the field, those along the outer walls at a later date. Whether this uneven growth was due to low temperatures or excess moisture seeping in through the foundation wall is not known. This year Colp is sealing the outside wall so no water can enter and is placing a small heating pipe around the perimeter of the house in an attempt to correct the condition.

All in all, the house proved quite satisfactory and produced plants far

For blueprint plans of the 18 x 84 foot plastic greenhouse developed at the University of Kentucky, along with detailed instructions for building and heating it, send 25 cents in coin or stamps to **AMERICAN VEGETABLE GROWER**, Willoughby, Ohio.

cheaper than could have been done with a glass house, or even hotbeds.

The tomato seed was sown in an electrically heated hotbed using seven coils of heating cable (50-foot length) and costing around \$300. The seedlings were then moved to the plastic house in 3-inch bands.

### Plant Protectors Used

Plants with bands were transplanted to the field by hand, beginning April 15. Cold, wet weather set in just after planting, but Colp had prepared for this. During the winter he and his men made up several thousand cone-shaped plant protectors from Usco Waxed Kraft paper held together with two small strips of wood.

The protector is 8 inches long with the bottom opening 8 inches in diameter and the top opening one inch. One strip of wood extends 4 inches into the ground to hold it in place over the plant. Tomato plants responded very well to this protection during last spring's frosty nights and no plant losses occurred.

THE END

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The John Bean sprayer for ever desired gallons to achieve spray c Bean Division, B

MARCH, 1956

## PREPACKAGED PRODUCE

(Continued from page 14)

state shows that potatoes packed in transparent film bags substantially outsell those put up in other kinds of packages.

There is another reason why prepackaged fresh produce "rings the bell." You've all heard the story about the Italian fruit and vegetable storekeeper who hung coconuts throughout his store with signs reading, "Lady, if you gotta squeeze something, please squeeze dees one." In his own way, Pasquale was highlighting the habits of shoppers.

Counter displays of such items as lettuce, celery, green onions, endive, escarole, and other green vegetables, which are often used raw, can be improved. Even in the most efficiently operated and sanitary food stores germs can be passed along when unpackaged bulk produce is handled repeatedly. Discriminating housewives don't like this. But when fresh vegetables and fruits are prepackaged, the products are both protected and displayed.

### "Silent" Salesmen

Convenience is very important to busy housewives. Most food buying in self-service stores is done on impulse. If fresh fruits and vegetables are to get their share of the consumer's food dollar, they must attract her attention. Packaging in attractive bags in which much of the product is visible is one of the best ways to achieve this.

Maximum sales depend largely on quality and convenience. Sure, it costs money whenever services are added to any product. But attractive packages do help sell fresh produce. And they do take the place of salesmen!

It's usually 10 to 15 minutes past 5 o'clock when I leave my office

job—often pretty tired. What with Billy's homework still to be done and a little TV thrown in, I must have dinner on the table by 6:30 at the latest. Shopping often means that I literally grab the products as I go by. The prepackaging of spinach, apples, and potatoes, are illustrations of what makes it possible for working housewives to operate on this "grab and run" system.

### Wanted—More Prepackaging

During recent years many new foods have been introduced and services provided because a lot of housewives wanted them—and could and would pay for them. One of the top-shelf desires of housewives today, whether wage earners or not, is for more time-saving food products which will get them out of the kitchen. Most are able and willing to pay for these added services. In many cases working wives have just about doubled the family spending power. The average family income today is over \$80 per week.

The fresh fruit and vegetable prepackaging business is still relatively new. Of about 56 billion pounds of fresh vegetables and fruits consumed annually, only one-fifth is prepackaged. In other words, the potential market for prepackaged produce has hardly been scratched.

From my point of view, the Model T Ford and bulk unwashed produce both belong to the same era. I firmly believe the produce industry will find it profitable to increase greatly the variety and quantity of prepackaged fruits and vegetables. As the head of a large chain organization recently remarked, "Visible selling is the merchandising technique of the future." For my money, that can't come too quickly. **THE END.**

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The large grower uses it for filling in skips or where plants have failed to take hold.

A small grower will make his entire planting with the Lynchburg Automatic Transplanter.



This transplanter will handle tomato, cabbage, sweet potato, pepper, egg plant, cauliflower, strawberry, tobacco plants and all other slip plants.

The Lynchburg Transplanter is ruggedly constructed and is guaranteed for one year against faulty workmanship or defective materials.

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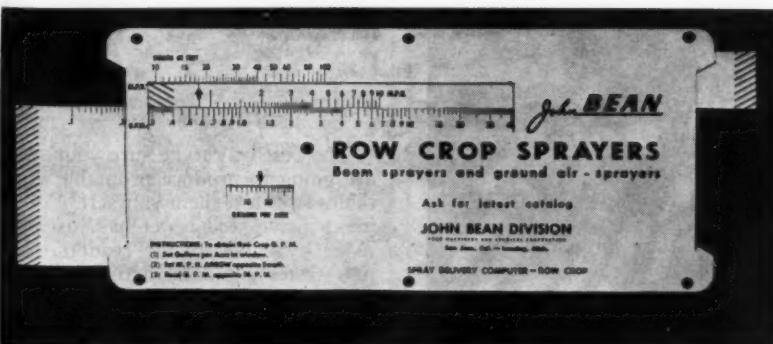


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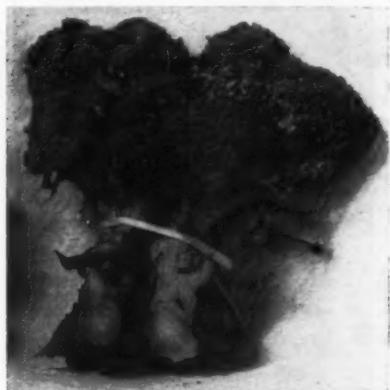
The John Bean row crop spray delivery computer is an invaluable aid to correctly calibrate your sprayer for even spray coverage. It takes into account swath in feet, speed in miles per hour, and desired gallons per acre to give growers recommended nozzleing for the correct gallons per minute to achieve spray coverage desired. A handy computer to have, it is available for 50 cents from John Bean Division, Box 840, Lansing 4, Mich.

MARCH, 1956

# NEW FOR YOU

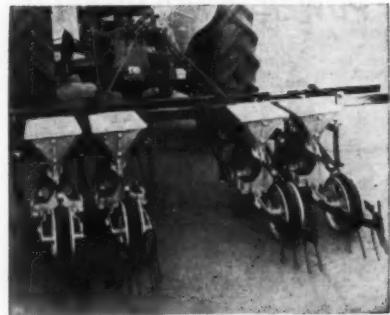
—to increase your profits

## Quick-Easy-Neat



Last fall growers told us of a new rubber band which was creating sales for them and doing a better job of binding vegetables together. The new band called "Open Ring" is manufactured in brightly colored, eye-appealing colors. The manufacturer has offered free samples and information to our readers. Why not write Alliance Rubber Co., 69 W. Washington, Chicago, Ill. Be sure to say you are an AMERICAN VEGETABLE GROWER reader.

## Precision Planter



Many of our readers ask us to recommend a precision planter. One that we know will work is pictured above. This crop-tested planter reduces seed usage, increases crop yield and eliminates hand thinning. The Milton Planter was designed for the sugar beet industry, where it is used almost exclusively. The planter does the same precision job with corn and beans if seed size is uniform. With Filcoated seeds the machine works ideally. Each unit is carefully constructed and tested, thus growers are

assured of many years of trouble-free operation. For details, just write Harbison-Paine, Inc., P. O. Box 448, Loveland, Colo.

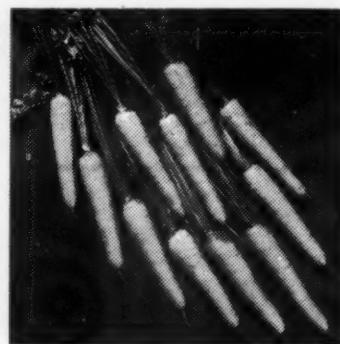
## Better-Cheaper



Growers in New England are reporting enthusiastically on a new plant pot which eliminates transplant shock, enriches the soil, and does away with picking up empties after planting. The new pot disintegrates when placed in the soil, yet is unbreakable and remains firm until it is planted. It's no longer necessary to pick up the empties after planting and the new pot insures plant growth. Why not get full information—just write Bird & Son, Inc., Horticultural Dept. AV-2, East Walpole, Mass.

## Seeds of Distinction

The cheapest investment we growers can make is in true-to-name verified seeds. Out on the West Coast a well-known seed company has developed some new productive varieties. Their new carrot and celery have shown remarkable reception in the market place. Why not get full information and prices? The Gill



Bros. Seed Co., Dept. VG, Montavilla Sta., Portland 16, Ore., will be glad to help you.

## Profit Harvester



Two agricultural school teachers felt there was a great need for an inexpensive, sturdy vegetable harvesting machine. After several seasons' work they have produced just such a piece of equipment. The machine is low in cost and does as good a job as a more expensive machine. Power is utilized from the power take-off of the tractor. The standard model has a 36-foot endless belt conveyor extending in each direction. Picked vegetables are laid on the belt and are carried to a 14-foot vertical conveyor, which in turn places the produce in your wagon, truck, boxes, or baskets. Why not write Cooe Harvester Co., Metamora, Ohio.

## Test Your Seeds



The best way to be sure your seeds are going to produce profitable vegetables is to test them yourself. A new inexpensive seed tester has just been made available to our readers. The new tester simulates actual soil conditions and is temperature and moisture controlled. Made of aluminum, the tester will do a good job for a long time. If you would like details, write Hugh Highsmith at The National Agricultural Supply Co., Fort Atkinson, Wis.

AMERICAN VEGETABLE GROWER

Send us your varieties, I other growers of AMERICAN developing varieties to R. T. Meiss GROWER,

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Cornell I titled, "Ve able from C N.Y., con scriptions Golden Be number of may be o growers. — Fish, Dept. nell U.

MARCH, 1954

# VARIETY NOTES

Send us your questions and comments regarding varieties. By exchanging ideas on varieties with other growers and breeders through the pages of AMERICAN VEGETABLE GROWER progress in developing new varieties and in using existing varieties to best advantage can be more rapid. E. T. Meister, Editor, AMERICAN VEGETABLE GROWER, Willoughby, Ohio.

THE BURPEE HYBRID melon, Golden Beauty sweet corn, and Gold Pak carrot were the most promising new vegetable varieties tested in New York during 1955. The tests were conducted by the vegetable crops department, Cornell University, in co-operation with the agricultural extension service and various seed firms. Vegetable growers may wish to test these three varieties on a limited scale.

The Burpee Hybrid is a melon similar to Iroquois in appearance and time of maturity, but is more uniform in size. Fruits average slightly smaller than Iroquois, though the tests indicate that the yield is higher.

Golden Beauty, an early sweet corn, was developed at the University of Massachusetts. It won an All America award in 1954. Golden Beauty is one to two days later than North Star, definitely higher in quality and has a slightly longer but less tapering ear. It merits trial in home gardens as well as in the early sweet corn producing areas. Trial plantings for this year should be small as the variety has been tested only one year under New York conditions.

Gold Pak is a new variety of the Imperator type selected by the Ferry-Morse Seed Co., which seems specifically designed for use in consumer packages. In trials last summer the variety had an excellent deep orange color both inside and out. It has a blunt tip and averages 7 to 8 inches in length. The tops appear to be rather weak growing and they pull off easily in harvesting. This means you will find the variety of little use as a bunching carrot, and a lifter will probably be needed for harvesting.

Cornell Extension Bulletin 928 entitled, "Vegetable Varieties," available from Cornell University, Ithaca, N.Y., contains more complete descriptions of Burpee Hybrid and Golden Beauty. It also describes a number of other new varieties which may be of interest to vegetable growers. —Phil Minges and Steve Fish, Dept. of Vegetable Crops, Cornell U.

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MARCH, 1956

## MISCELLANEOUS

AVAILABLE FOR SPRING: DAUGHTER Strawberry plants grown from our original nineteen fifty-five Virus-free planting. Write for free folder. FLORINA GARDENS, Greenfield, Mass. PEAFOWL, PHEASANTS, GUINEAS, BANTAMS, Waterfowl, thirty varieties. Pigeons. JOHN HASSE, Bettendorf, Iowa.

COMMERCIAL FLOWER BULB SPECIALTIES. A dependable source for the commercial flower grower. Write for descriptive list now. REGAL BULB CO., Holland, Mich.

WHY HAVE GRAY, FADED HAIR? RESTORED to natural color, \$1.50. FENDRICK, 114 N. 6th Street, Allentown, Penna.

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Certified Tomato, Pepper, Onion and Cabbage plants. All leading varieties, including the Hybrid Tomato. Satisfaction guaranteed. Write for free pamphlet.

JOHN THORNHILL PLANT COMPANY  
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## CHRIS-CROSS WATERMELON

A new Dixie Queen type with black seeds. Wilt resistant and melons won't spot with Anthracnose. Thin but tough rind. Will take long haul. Flesh red, sweet and good flavor. Consistently good yielder. Outstanding when conditions get tough. Does not sunburn. No white heart. No hollow heart. No culls.

Its appearance sells it. Its quality brings the buyer back. It is making Iowa Growers money. It will for you too.

Price of seed—\$5.00 per pound  
CHRIS CHRISTENSEN, Grower  
Montrose, Iowa

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Only 25c a word for one-time insertion; 20c a word for two-time insertion; 15c a word for four-time insertion—CASH WITH ORDER. Count each initial and whole number as one word. ADDRESS AMERICAN VEGETABLE GROWER, Willoughby, Ohio.

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GROW EXPENSIVE HERBS FOR US! BIG PROFITS Home-Business of your own. Year around profitably! We supply everything necessary! Send for FREE RARE SEEDS AND REVEALING PLAN. NATIONAL HERB EXCHANGE, Dept. AF, Gardena, Calif.

WAXES FLOORS WITHOUT "WAX". NEW invention. No more floor wax to buy. Sensational seller. Samples sent on trial. KRISTEE 118, Akron, Ohio.

\$5,199.90 WAS PAID TO JOHN BETTS, in few weeks. Grow mushrooms. Cellar, shed, Spare, full time, year round. We pay \$3.50 lb. Free Book. MUSHROOMS, Dept. 127, 2954 Admiral Way, Seattle, Wash.

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BUY SURPLUS FARM TOOLS, MACHINERY, feed, jeep, tractor, hundreds others direct from US Government at tremendous savings. List \$1.00. BOX 169 AAG, East Hartford 8, Conn.

FOR SALE: 1 GOOD AS NEW, USED JOHN Bean duster with Hercules engine, on skid. WIEBER LUMBER COMPANY, Fowler, Mich.

ELECTRIC INCUBATORS—ALL SIZES. BIG batches turkey, pheasant, goose, duck, chicken eggs. Illustrated circular. GOSHEN POULTRY FARM, Goshen, Indiana.

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LATEST METHODS TREATING PILES, Fistula, Colon-Stomach disorders. Write for free book. McCLEARY CLINIC AND HOSPITAL, E345 Elms Blvd., Excelsior Springs, Mo.

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AMERICAN VEGETABLE GROWER | WILLOUGHBY, OHIO

Cover Crops and Diseases

DO cover crops have any effect upon plant diseases? In viewing this question we were interested in a recent report from the University of California. Drs. John W. Oswald and Oscar A. Lorenz of that institution feel that a particular cover crop preceding a vegetable crop may have some effect toward inhibiting certain diseases of the vegetable.

They come to this conclusion from the results of a recent crop rotation study conducted during the past six years. Potatoes was the crop under study, and the rotations involved fall peas, barley, soybeans as cover crops. The outstanding result was that potatoes grown on the soybean land consistently showed very low scab infection. The soybean crop apparently did something to hold the potato scab fungus in check.

Spring

HERE it is March again; spring, the season of great beauty, and one of great risk for the vegetable grower. We are planning for another bountiful season and are now setting plants in the field, hoping for the best in weather to get the tiny plants up and off to a vigorous start. We know that maximum production comes only from plants that make a quick and uninterrupted take-off when planted to field.

We are always looking for ways and means to get plants to field just a little earlier, ways to protect the tender vegetables, and ways to boost plants into vigorous productive growth early. We eagerly undertake this spring rush to field in order that we may find ourselves in a more favorable position when market time comes.

This rush can, and often does, pay off. On the other hand, some have come to grief. Last season was a notorious one in this respect from the Midwest throughout the South. The destructive late spring freeze taught many lessons on planting and plant care.

In this issue we have attempted to bring you some plant growing experiences which may help you ward off trouble. As we travel around and learn what is going on during this "spring rush" we come up with a few observations that may be worth considering.

One thing is outstanding: the

Just what effect the soybean crop may have on the disease is not known. It could be that soybeans encourage the growth of a bacterial or antibiotic-producing fungus which in turn attacks the scab fungus. To explore this and other possibilities, further experiments are being planned under the direction of Dr. William C. Snyder, University of California plant pathologist.

As to the effects of the other two cover crops, fall peas had no effect upon the incidence of scab, while barley increased the disease. So three crops gave three different results as to scab severity. It will be interesting to see what effects these and other crops might have upon other plant diseases and in other parts of the nation.

Rush

stronger and healthier the plant, the better it withstands adverse weather and low temperatures. This was quite evident in a tomato field in southern Illinois we saw a couple of years ago. One group of plants was poor and spindly, the other was strong and vigorous. The pay-off came in earlier harvest and higher yields for the vigorous plants. Early tomatoes brought more than twice the price of later ones.

There is a proper time for planting each vegetable crop on your farm. In determining a planting date, for plant or seed, it is wise to consider soil temperature, moisture

VEGETABLE CONVENTION



condition, long-range weather forecast, and hardiness of the vegetable in question. Past experience and the experiences of others in your area are not to be overlooked. Summing up all this data, you can come pretty close to finding the most suitable planting date for each crop, and it will vary little from year to year.

But there are times when we want to rush this date a little. We want to set tomato, pepper, or cucumber plants to the field a week, maybe two weeks ahead of the most suitable date. Then we must provide some form of plant protection. This is sometimes a costly proposition, but frequently it pays dividends in high early market prices. It is a risk we take on a portion of our crop, and it may be a worthy one so long as we don't stake too great a portion on the high risk side of the planting date.

Follow Directions!

THE recent seizure of two carloads of lettuce in New York City by Food and Drug inspectors has brought forth a warning from the Food and Drug Administration. Growers and all others concerned with the processing and shipping of food crops again are urged to carefully follow directions on pesticide labels.

The seized lettuce was contaminated with endrin, an insecticide not permitted for use on this crop. It had been shipped from El Centro, Calif., and came from a 40-acre field which was left unharvested after Food and Drug inspectors had sampled the first two cars.

This was the first seizure of fresh produce to be made under the new Pesticide Chemicals Act, Public Law 518, and the first to involve the application of a pesticide to a growing crop.

Agricultural dusts and sprays should be used, Commissioner George P. Lerrick of the Food and Drug Administration emphasizes, only on the crops specified and at the times and in the amounts specified.

Be sure to read the label!

Coming Next Month

- A Program for Successful Seed Germination
- Growing and Forcing Rhubarb
- How to Select Planting Dates for Sweet Corn
- Hybrid Spinach Is Now a Reality
- Irrigate to Ward Off Jack Frost in the Berry Patch

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TABLE GROWER



# avoid serious soil insect damage on potatoes, vegetables and fruit



use **aldrin**

Now—with a single application of powerful aldrin—you can control underground insect pests that threaten the life and quality of your vegetable crops.

Wireworms, white grubs, flea beetle larvae, strawberry root weevil grubs, cabbage maggots, rootworms, and other major soil pests breathe their last if they so much as touch, taste or smell aldrin. Yet aldrin does not affect the flavor, or leave a harmful residue when applied according to label instructions.

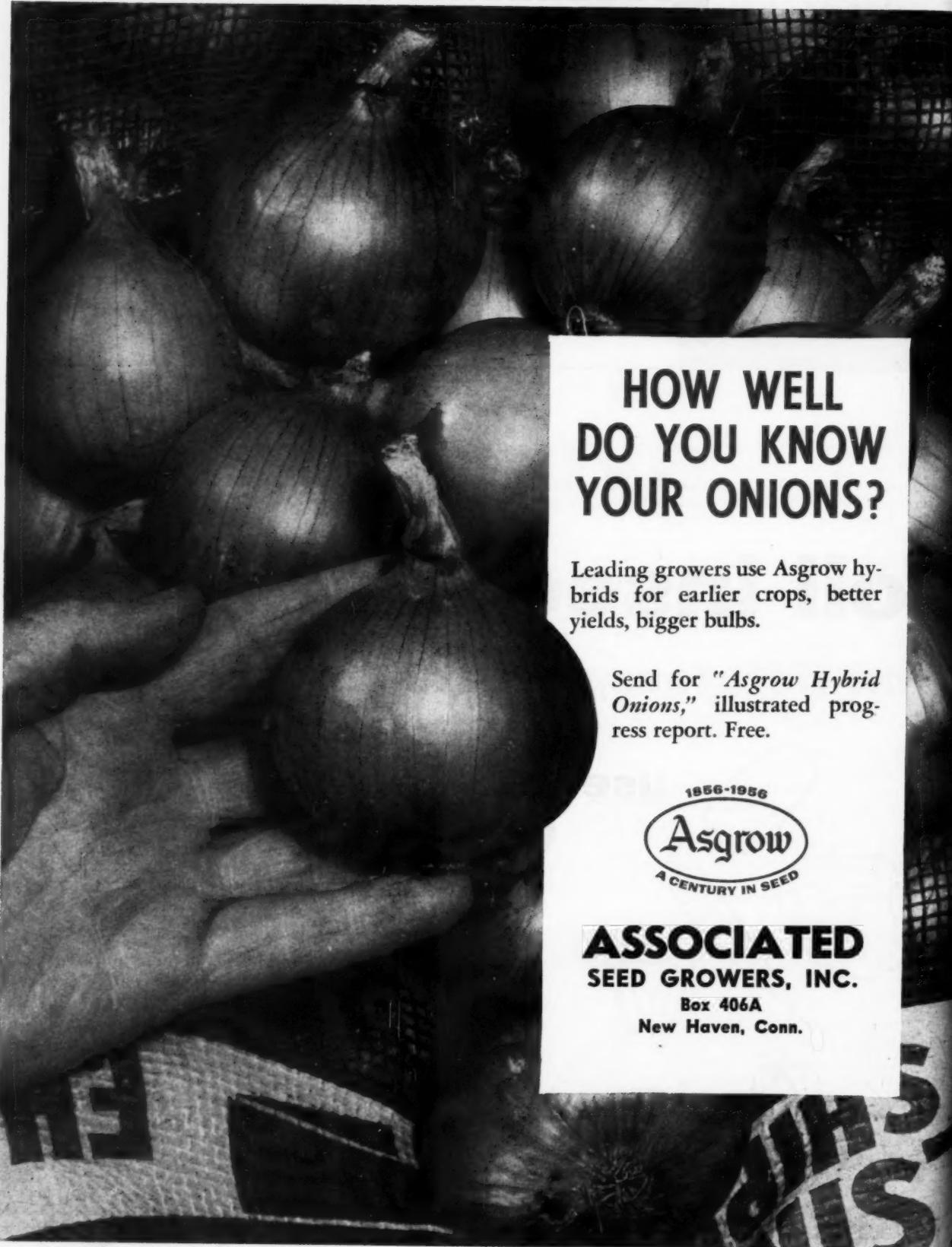
Aldrin is economical and easy to use, too. A small amount per acre does the job! You can broadcast it as a spray or dust . . . or include it in a fertilizer mix. It's effective in every form.



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